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Although the dropout problem is one of great concern at both local and national levels, it is readily apparent that the problem is not the same everywhere in the country. Dropout rates vary considerably from one community to another, and even differ between high schools in the same school system. Limitations in previous studies of the problem have been in terminology, research initiation, data determination, data collection, and data interpretation.

The NEA Dropout Study was perceived as a significant guidance tool and as a reliable annual index against which renewal or extended guidance efforts might be reviewed. It was also seen as a tool for the acquisition of pertinent data on pupil needs to which school guidance services could address themselves, and for the establishment of effective early identification procedures. Interpretation of results may lead to changes in school organization and curriculum development.

The study should provide possibilities for standardizing dropout studies in American schools by aiding in policy development, program planning, and guidance and counseling. The guidance form for dropouts and potential dropouts should request easily accessible information, require exact answers, include a built-in system of double-checking responses, and be economically feasible to reproduce. All information gathered should lend itself to comparability. Methods of combining dropout data for analysis and calculating rates of pupil mobility are presented. Numerous tables and charts are included.

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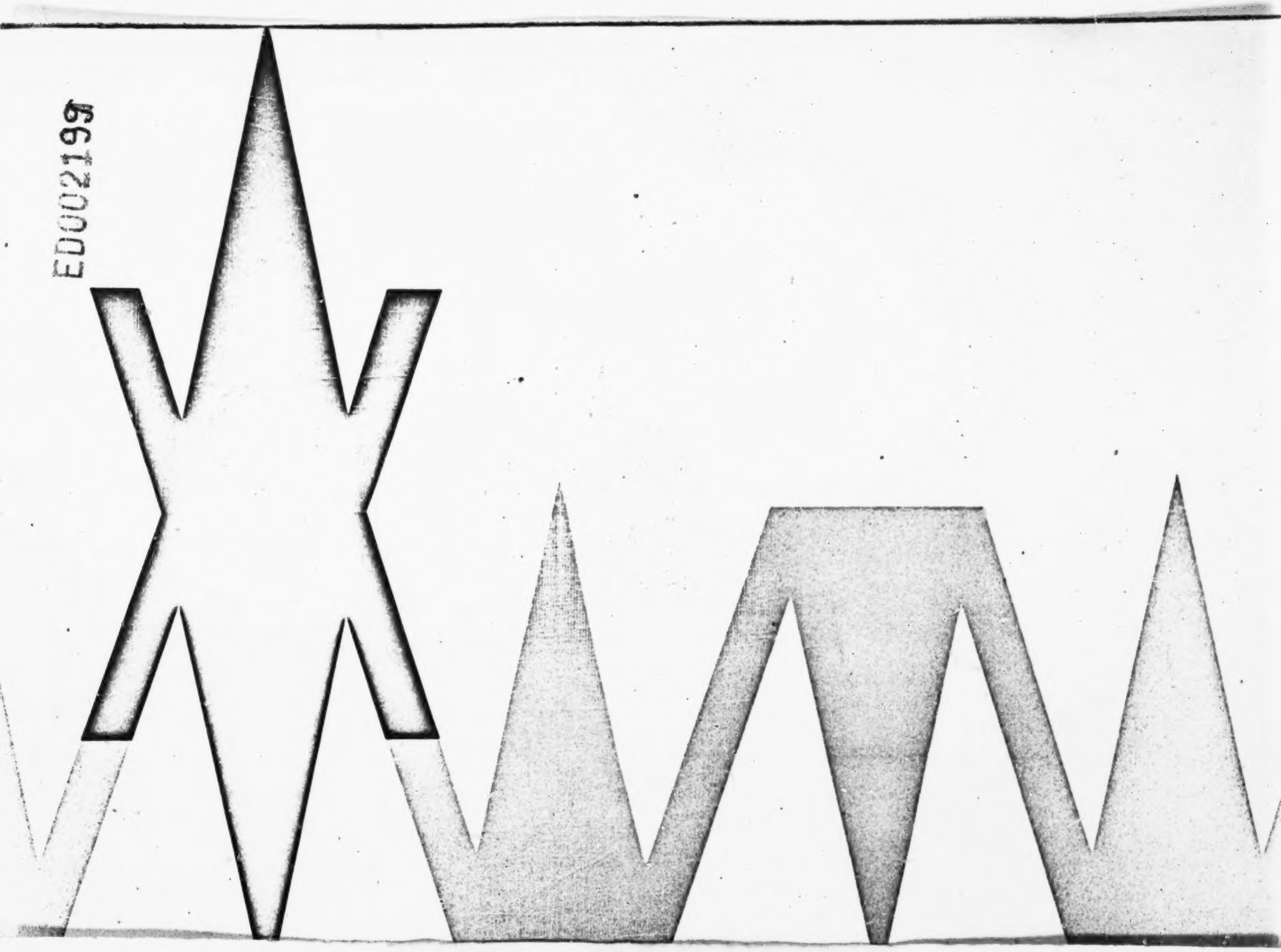

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Dropout Studies

Design and Conduct

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Dropout Studies

Design and Conduct

◆

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FOREWORD

The NEA Project on School Dropouts was initiated in September, 1961. The purpose of the Project has been to focus attention —nationally, state- and county-wide— on the seriousness of the problem, to serve as a clearing house for information regarding current programs and research, and to provide consultation to school, agency, government and organization officials. During this time, the Project has prepared and published three books, *The School Dropout* (1964), *Guidance and the School Dropout* (1964) and *Holding Power: Large City School Systems* (1964); it has sponsored the NEA Research Memorandum on Dropouts (1963); it has organized and conducted numerous special invitational meetings on special aspects of the problem and, in the near future, will release additional publications relating to curricular and instructional considerations. In addition, the Project has provided consultant assistance for numerous films, other publications, new research efforts, special educational programs, and conference programs.

During this time, innumerable dropout studies and reports have come to the attention of the Project. It became increasingly evident as these reports accumulated that each was independently prepared with little attention to standardization or uniformity of terms, data reported, or method of calculating the dropout rate used. On some occasions, in fact, two consecutive reports from the same school system would be totally inadequate for comparison purposes. Indeed, comparability between most of the studies was practically impossible. Furthermore, it was extremely difficult to determine the relative extent of dropping out in the various areas or localities of the country. For a given school district or system, it was difficult to determine which of several approaches was most appropriate for establishing relevant dropout statistics for itself.

Simultaneously, the U. S. Office of Education through its Guidance and Counseling Programs Branch was similarly concerned. This unit had been given responsibility for President Kennedy's 1963 Summer Dropout campaign and was preparing a number of publications relating to the problem, of which the most recent is *Dropouts: Selected References*, by Leonard Miller (1965). This unit was also eager to identify ways that school guidance personnel, so frequently involved in various aspects of dropout study procedures—from actual statistical accumulation to providing consultant assistance to dropout study committees—could be more effective in their work with individual potential school dropouts and in their contributions to the total school program.

The *Dropout Studies* was perceived as a significant guidance tool in its relevance for the provision of a reliable annual index against which renewal or extended guidance efforts might be reviewed. It was seen also as a tool for the acquisition of pertinent data on pupil needs to which school guidance services could address themselves, and for the establishment of effective early identification procedures, especially for dropout-prone pupils.

Hopefully it would lead to the support of appropriate guidance activities and services for these pupils, such as orientation programs, exit interviews, follow-up interviews, referral services, parent interviews, and case conferences.

In 1962, the Project on School Dropouts, in cooperation with the Guidance and Counseling Programs Branch of the U. S. Office of Education, initiated plans for a national invitational conference on dropout studies. The suggestions and recommendations presented in the conference were to be elaborated and presented in a subsequent publication by the Project on School Dropouts. The conference was held at the U. S. Office of Education in Washington, D. C., on October 13-15, 1963. This publication, *Dropout Studies: Design and Conduct,* based on the outcomes of the 1963 conference, was prepared by the Project on School Dropouts and developed in cooperation with the U. S. Office of Education.

Two novel features of this book are the form for gathering information about individual pupil dropouts and the methods of calculating holding power and dropout rates.

From its inception, the preparation and writing of this document has been under the supervision of Daniel Schreiber, Director of the Project on School Dropouts. Dr. Bernard A. Kaplan, Coordinator of Special Projects, Bureau of Guidance, New York State Education Department, was on leave of absence from that position during 1962-1963 to serve as Assistant Director with the Project on School Dropouts. Dr. Kaplan assisted in the development of the conference and with the early plans for the design and format of the publication. During 1963-64, Dr. Robert D. Strom served as Assistant Director for the Project and a portion of the initial draft was prepared by him. The final editing of the publication with additional contributions were made by Mr. Daniel Schreiber and Dr. Bernard A. Kaplan.

The Project on School Dropouts wishes to acknowledge the helpful advice, assistance and contributions of the following: Dr. Frank L. Sievers, Director, Guidance and Counseling Programs Branch; Mr. Leonard M. Miller, Specialist, Counseling Techniques, Guidance and Counseling Programs Branch; Dr. Hyrum Smith, Chief, Guidance Procedures and Techniques Section, Guidance and Counseling Programs Branch; and Dr. John F. Putnam, Specialist in Educational Records and Reports, all of the U. S. Office of Education. In addition to his helpful advice, Dr. Putnam contributed materially to the chapter on "Calculating Rates of Pupil Mobility."

Debts of sincere gratitude are due to the conference participants, both presenters and critics, and particularly to Dr. Paul Bowman who served as chairman of the conference. The names and professional affiliation of the participants appear on page 83.

Special appreciation is extended to Dr. William G. Carr, Executive Secretary, Dr. Lyle W. Ashby, Deputy Executive Secretary, and Dr. Lawrence G. Derthick, Assistant Executive Secretary for Educational Services, of the National Education Association, for their guidance and encouragement.

Acknowledgement is also made of the help given to the Project and to me personally by David R. Hunter, Henry Saltzman and Paul Ylvisaker of the Ford Foundation.

Thanks and appreciation are due to Miss Catherine M. Hockar and Mrs. Kathleen Thompson of Delmar, New York, for the typing of the manuscript.

Finally, I'm deeply grateful to my wife, Bernice, who has been extremely understanding of the time I devoted to this publication.

DANIEL SCHREIBER, *Director*
Project: SCHOOL DROPOUTS

April 18, 1965
WASHINGTON, D. C.

CHAPTER I

The Dropout Study—A Tool for Guidance*

The school dropout problem has grown to such magnitude that two Presidents of the United States found it necessary to focus the public attention on it. In July 1963, President John F. Kennedy pointedly referred to it as a "serious national problem," and then announced that he would allocate $250,000 from his Special Emergency Funds of one million dollars to school systems to hire guidance counselors who would visit dropouts and potential dropouts. The aim would be to get as many as possible of the 400,000 summer dropouts back to school. The Project's estimate is that between 75,000 and 100,000 returned to school because of this special effort.

On January 12, 1965, President Lyndon B. Johnson sent his message on education to Congress. Starting with the Northwest Ordinance of 1787 and going on to the present, he extolled and praised America's continuing concern with providing a good education for all its children. Then, the President said:

> "There is a darker side to education in America. . . .
>
> Almost a million young people each year will continue to quit school—if our schools fail to stimulate their desire to learn. . . .
>
> The cost of this neglect runs high—both for the youth and the nation."

Yet paradoxically, this national concern comes at a time when the school's holding power is at its highest. In 1900, for example, not more than three or four of every 100 fifth graders graduated from school eight years later. It wasn't until 1950, when for the first time in our nation's history, more pupils graduated from high school than had dropped out—505 graduates for every 1,000 fifth graders. Since then this improvement in holding power has continued at a steady rate so that today approximately two out of every three pupils graduate from school.

This paradox is not a senseless, mathematical puzzle; it is present and real. For as more and more youngsters enter the labor market with higher educational qualifications, those with lower qualifications, the school dropouts, are more disadvantaged. The spread between the two groups becomes greater and the dropout discovers that what he has to offer as a worker is not acceptable by industry.

A very visible consequence of all this is the fact that the national unemployment rate has not fallen below 5% in the past 68 months. Also two-thirds of the approximately three and a half million unemployed have less than a high school education. And the rate of unemployment among 16-21 year old dropout youth averages 25 percent.

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* This chapter is based on an address by Daniel Schreiber, Director, NEA Project on School Dropouts, at the invitational meeting on a Design For Dropout Studies, in cooperation with the U. S. Office of Education, in Washington, D. C. on October 13-15, 1963.

But it should be emphasized that these unemployed are not unemployed because they are high school dropouts; they are unemployed because the kinds of jobs their training—or lack of it—fits them for is vanishing.

A recent report issued by the U. S. Bureau of Labor Statistics stated that gains in productivity, or output per man hour, were eliminating a minimum of 200,000 factory jobs a year. The causes were automation and technological improvement. Added to this loss is the problem of providing jobs for 12,500,000 new workers this decade.

Frightening as these estimates were, they were challenged by a manufacturer of automation equipment as being a gross underestimate. He maintained that automation is eliminating jobs not at the rate of 4,000 a week but at the rate of 40,000; not 200,000 a year, but 2,000,000 a year. Further he maintained that many workers who are displaced because of automation are not retrainable, due to their levels of intelligence, and education. (John I. Snyder, Jr., Chairman of U.S. Industries Inc., in testimony before a Congressional Committee October 2, 1963.)

The present day national concern for dropouts is not a new concern for educators. Enlightened teachers and administrators have always considered it one of their problems. Society's concern, buttressed by rising rates in live births, unemployment, delinquency, youth crime and welfare costs, have catapulted it forward and made it one of education's major problems. Over and above these, today's dropout represents a waste in human resources. Again, I would like to quote President Kennedy, but this time from his State of the Union message to Congress in 1963:

> "The future of any country which is dependent on the will and wisdom of its citizens is damaged, and irreparably damaged, whenever any of its children is not educated to the fullest extent of his capacity. Today an estimated four out of 10 students in the fifth grade will not even finish high school—and *that is a waste we cannot afford.*"

For many years, the U. S. Office of Education has been gathering and publishing statistics on school holding power. These statistics are based on school membership in grade five, or grade nine, and the number of pupils who have graduated 8, or 4, years later.

The dropout rate is usually computed by subtracting the percent who graduated from 100 percent. This type of computation results in a fairly accurate figure for the nation as a whole. Some State education agencies and local school systems have used similar methods; however, because of pupil mobility from State to State and district to district, their figures, unless compensation has been made for this factor, are not as reliable as the national statistics.

Other states and local school systems have engaged in annual dropout rate studies. Here an actual count is made of the pupils who dropped out and the number is divided by the total enrollment in order to get the rate. In these studies, some systems include dropping out during the academic year—summer excluded—while other systems provide for dropping out that occurred during the entire calendar year.

Because the type of research undertaken by a school system determines the results, and hence the interpretation and meaning of the results, comparisons are difficult. A national invitational conference was convoked to attack the problem and outstanding research experts, many of whom had engaged or were engaged in dropout studies, were invited. Although there was never complete unanimity on the total design for the book, *Dropout Studies: Design and Conduct,* the advice and guidance offered by the participants contributed to the publication.

It is our hope that this book, *Dropout Studies: Design and Conduct,* will encourage school systems to undertake dropout studies, and that in so doing, they will gather meaningful statistics which can be compared with the statistics from other systems. Interpretation of the results may lead to changes in school organization, curriculum development, etc. Also we believe that the guidance form developed by the Project, as well as the book, itself can become a valuable tool for guidance counselors.

The need for comparability of holding power rates is of prime importance. For example, during the past year the State Education Departments of Vermont, Maryland, Illinois and Washington published reports dealing with dropouts. All are good. Yet because of different definitions and calculations it is difficult to make meaningful comparisons. One glaring example is the definition of the dropout. Some school systems are still referring to "voluntary" and "involuntary" dropouts. What is "voluntary" in one system is classified as "involuntary" in another. I am happy to say that the National Education Association's Project on School Dropouts cooperated with the U. S. Office of Education in formulating a new definition—a rather simple, uncomplicated one—which states that "a dropout is a pupil who leaves school for any reason except death, before graduation, and without transferring to another school." (A complete definition will be found on page 72.)

In addition to holding power and dropout rate studies, longitudinal or annual, many school systems have engaged in extensive studies to find out why pupils quit school. The rationale behind this is that the number of dropouts could be reduced if we knew why they dropped out.

These studies usually combine data from several of the following sources: (1) teacher and/or counselor opinion of the dropout; (2) opinions of the dropouts themselves; (3) comparison of dropouts with pupils who graduate with respect to intelligence, sex, age, average marks, socio-economic status of family, race, and health; (4) examination of evidence in the cumulative school record of each individual; and (5) personal interviews with dropouts and their families.[1]

Sometimes these studies lead to recommendations; other times, to setting up criteria for identification of the potential dropout; and, once in a while, to a recognition that *the data obtained were not sufficiently definitive or complete to provide a precise statement of the characteristics and conditions that resulted in dropping out.*

It is this complexity—the recognition that each dropout is an *individual* influenced by forces in his own particular environment—that makes the guidance counselor's role a difficult one. Yet it is to the counselor that we and the dropout turn for help. Let me cite two examples. Recently I had as a visitor to my office a representative from the Chamber of Commerce in one of our largest cities. His city's Chamber was interested in setting up a large scale, well-financed project to help decrease the number of dropouts and to improve their education and employability. His major emphasis was on *guidance and counseling.* In the second instance, six out of every ten dropouts contacted in a follow-up study of a California school felt that more guidance and counseling would have helped them to continue with their education longer.

While counselors can take heart that their role is being credited with such significance, the question will invariably be raised, and rightly so, concerning what guidance counselors can realistically be expected to do in reducing their schools' dropout rates.

Where, when, and how the counselor can hope to intervene successfully permits no easy solution, but intervene he must. Dropout studies have given us some understanding of the negative personal and social qualifications of these youth. Some of these are that the dropout:

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[1] *Research Memo,* Project School Dropouts, April 1963. National Education Association, Washington, D. C.

- tends to reject both school and self
- is usually insecure in his school status
- is less respected by teachers because of academic inadequacy
- does not see education as a means for a richer and fuller life
- does not have adequate goals established
- has parents who are less likely to show interest in his school experiences.

All in all the dropout is extremely pessimistic about his future. He has been his own Charybdis and Scylla. Should he continue in school and face continued failure in school and further damage to his ego; or, should he quit and try to enter the adult world of work which has told him, in no uncertain terms, that he is not wanted? Or, is there another alternative?

I'm sure there is. I would like to paraphrase the last paragraph of the National Education Association's *Each One Reach One* letter distributed during the summer of 1963.

> "If each one of us will devote a few hours one day or more . . . and personally reach . . . the potential dropout, we can . . . help thousands. With that impetus . . . we can accelerate our efforts . . . that the curriculum and school services may be better adapted to the widely varying needs of all our boys and girls. . . . We can help and our help matters to the students we reach."

Thomas Wolfe so well expressed man's obligation to his fellow man when he said, "we owe to every man his right to live, to work, to be himself—and to become whatever his manhood and his vision can combine to make him. This is the promise of America."

This, indeed, is the challenge to American education.

CHAPTER II

Previous Dropout Studies: Their Purposes and Limitations

The dropout problem, as it is now termed, is one of great concern at both the local and national levels. The reasons for this concern were mentioned in Chapter I.

It is readily apparent that the dropout problem is not the same everywhere in the country. Dropout rates vary considerably from one community to another; indeed they differ even between high schools in the same school system. There are many reasons, some salient, some not so evident, for these variations.

To determine the need for corrective action or to provide guidelines for the type or extent of action to be taken, intensive studies of the dropout situation are frequently inaugurated by school systems, community agencies, and other organizations such as state education agencies.

In this chapter some of the approaches used in these dropout studies as well as their limitations will be briefly reviewed.

The most helpful way to view dropout studies is in terms of their purpose. Most researchers have believed that accurate direction and comprehensive evaluation can occur only to the extent that specific goals of a study predicate design. Thus, investigations in the field may best be typed as to the basic reasons for which studies have been made. The following six questions have dominated the research in this area to date.

Purposes of Dropout Studies

How many pupils drop out of school?

Studies designed to ask this question have enjoyed wide usage and represent the so-called "keeping track" approach. Attempting to determine the gravity of existing problems, such studies may embrace a given point in time, a year-to-year annual check, or employ a longitudinal view for a given group of pupils. Regardless of the time element, this approach is a numbering activity which when completed enables one to state with increased accuracy the magnitude or scope of the problem. This step is legitimate, of course, and frequently precipitates further study or action, but taken alone it does not indicate causative or correlative factors which may be important to preventative or corrective action.

Who are the dropouts and what are they like?

A number of studies seem to be oriented around the major criterion of obtaining statistical data about pupils who have dropped out. Purporting to ascertain "who" in depth, these investigations are conducted by collecting data regarding a given dropout population and determining distributions of various characteristics (e.g., age, intelligence, reading level) describing the modal pupil. Sometimes this "what are they like" approach involves comparisons of the dropout with other segments of the pupil population such as the high school graduate.

Which pupils will drop out?

This has been the apparent concern of a smaller, yet fairly substantial number of research efforts. Predictive investigations usually evolve from the "who" approach mentioned above. A number of characteristics associated with dropouts and differentiating them from graduates are applied to a given pupil population in order that probable dropouts might be identified. Ostensibly, this enables techniques of prevention to be put into effect where deemed appropriate. At the same time, prediction often fails to reveal those youngsters who, had we known, might have been prevented from dropping out. In this method, the predictive criteria devised to date have not been precise enough to identify *all* eventual dropouts or to exclude some pupils who would possibly have graduated anyway.

What are the reasons for dropping out?

The purpose of some investigations has been to determine factors associated with dropping out as stated by the dropout or others who know him. Several sources are often utilized to obtain such information. In some cases the pupil is asked; in others a teacher, administrator or guidance director might be queried. Sometimes parents also are surveyed. Frequently, a combination of these persons is asked either at the time of dropping out or at a subsequent date. Most prominent among the difficulties with this approach is the frequent disagreement about reasons for dropping out. Oftentimes categories from which the causes influencing early school leaving are to be chosen lack the very factors which did in fact precipitate leaving school. Occasionally, these surveys ask potential dropouts what they did or did not like about their school programs or school life.

What happens to dropouts?

There is need for a substantial body of evidence on the question of what happens to the dropout. To ascertain the economic, vocational, and social destinies of former dropouts is the purpose of follow-up studies. Questionnaires and indirect assessment have been the usual tools in this encounter. The small proportion of investigations carried on in this important area challenges the popular assumption that all dropouts are lost, that their migration from school is necessarily a tragic one. Figures indicating a 25 percent unemployment rate among dropouts also point up the fact that 3 out of 4 dropouts are gainfully employed. These studies help us to learn more about both groups.

What ways and means can be developed to reduce dropout rates?

To determine the conditions under which potential dropouts become successful in school is another purpose for dropout research. Unfortunately questions of this nature are often the last ones studied, and usually after other research projects have been completed. However, this area of concern should not necessarily be isolated from other research on dropouts and it has a legitimate place in these studies. The approach frequently focuses on experimental and control groups and investigates a constellation of factors believed to decrease the incidence of dropping out. Dropout research need not be restricted only to the areas of scope and causation; various programs or techniques of action deserve serious evaluation and analysis.

Limitations of These Studies

Certain limitations have curtailed optimal benefits of the dropout studies conducted thus far. In the absence of a common definition for the term *dropout,* studies purporting to investigate the same sample have, in fact, often been dealing with different populations. Then, too, failure to muster community support and involvement has diminished the effect of the findings.

Problems have arisen with reference to completeness of data obtained. Some investigators apparently decide upon the nature of the data to be collected before determining whether such information is readily accessible and available in the schools. Public schools are not primarily organized for the specific purpose of providing information for investigators, and pupil records frequently are inadequate as instruments of research. Consequently, data obtained have not always been sufficiently definitive or complete to provide a precise statement of conditions contributing to dropping out or of characteristics of early school leaving. Trying to pinpoint reasons for leaving school may prove difficult because the reasons given by the pupil and by the school often are contradictory. Also, different lists of reasons used in different dropout studies do not permit comparability between school systems. Data are often gathered on cumbersome forms. Moreover, data collection by questionnaire realizes a notoriously low return from dropouts. Finally, lack of adequate funds, personnel, and processing methods on the part of the investigators also constitute limitations.

Because differing bases of accountability give rise to different methods of calculation, statistical findings are not comparable from city to city. Often considerations of pupil transfer, acceleration, and retention in grade are not included. Even the best studies sometimes fall short of their potential because of the interpretation and reporting procedures used; different population groups within the community and state require different types of presentation if understanding of the problem is to ensue to all. Frequently, annual and longitudinal dropout rates are recorded interchangeably with no mention of the fact that the former will always be less in terms of percentage than the latter for a given group.

In sum, limitations of terminology, research initiation, data determination and collection, and the interpretation-reporting of study findings have diminished the benefit which these studies might enjoy. That greater progress might be made in resolving, or in some measure lessening, present limitations of dropout studies, the remainder of this publication is directed to important considerations, recommendations and guidelines for future investigations about dropouts. Because of the present urgency and demand for better and more comparable dropout figures and facts, greater emphasis will be directed to the first four kinds of studies described earlier. The chapters which follow will present, in order, these fundamental aspects:

- the initiation of dropout studies
- the use of a special dropout identification form
- the collection of data
- the bases and methods of compiling dropout statistics
- the interpretation and reporting of study findings.

As this listing suggests, dropout studies are far more than the collection of statistics. To fulfill their potential as meaningful tools of guidance and indicators for future action, their design and utilization must obviously consider all necessary ramifications essential to successful realization. To this goal, the remainder of this book is addressed.

CHAPTER III

Initiating the Study

Community Involvement

The first step in initiating a dropout study is to involve those persons without whose support a successful venture is unlikely. A primary responsibility incumbent upon those urging research is the selection of members for the group that will guide the project. Indeed progress often hinges on whether a steering committee is composed of representative facets of state and/or local leadership. Communication with the public will be enhanced and possible resistance diminished when committee membership fairly represents all aspects of the adult community. It cannot be overemphasized that every effort should be made to involve those persons, groups, and agencies whose function and/or concern relate to dropouts. It is feasible then that membership in the group from which leaders will be selected and from which committee structure will emanate should include personnel from the following sources:

- *The Public Schools*—Charged with direct responsibility to provide all youngsters with the potential skills of livelihood, this element includes school personnel who work most closely with pupils as well as with others in the school system, such as delegates from administration, supervision, research, and instruction. Members of the school board should also be extended invitations.
- *Higher Education*—Often concerned with the loss of human resources, professionals at the college and university level can be valuable resource persons. It is helpful to choose professors from education and the allied disciplines for which the problem has implications—such as sociology, psychology, and social work.
- *School - Related Organizations* — Designed to better equip youth with healthy attitudes by interaction, groups from this phase of community life conduct programs, offer facilities, and provide for aspiration improvement of youth. This includes youth groups such as YMCA, 4-H, Boy Scouts, YWCA, Girl Scouts. Also, the Parent-Teacher organizations have a stake in this area of concern.
- *Civic, Church, and Community Groups*—Supporting a better community through funds, facilities, and personal concern for residents are such resourceful organizations as the Junior Chamber of Commerce, the Council of Churches, League of Women Voters, Kiwanis, and the American Association of University Women.
- *Labor and Management*—That the world of work is interested in dropouts has been evidenced by the cooperation which has been shown in work-study programs. Close contact with this facet of society is helpful to the schools and there is no better place to begin than in mutual study. Representatives from labor organizations, business, and industry should be asked to join the group.

- *Public Agencies and Officials*—Many government agencies have a role to play in the welfare of dropouts. This is especially true of agencies such as local Department of Welfare, Juvenile Court, and the State Employment Office. Interested public officials also can lend their valuable assistance to attacking the problem. The governor, mayor, or chief county officer should be invited to participate directly, or indirectly through a representative.
- *Mass Media*—In a sense the public is asked to attend when an invitation is sent to members of the press, radio and television. This is as it should be as the general public does have a part to play in reducing the incidence of dropping out. Also, interested and sympathetic leaders in mass media can do a great deal for the dropout study when it comes to achieving understanding of committee purpose, action, findings, and recommendations.

Bringing together an impressive group of capable and talented individuals requires intensive diligence and promotion. However, only by mobilizing the interest and effort of these persons can a dropout study have both significant direction and influential effect. A helpful guide to the development of effective citizens advisory groups is the U. S. Office of Education booklet published in 1964, *Citizens Committees . . . For Better Schools,* by Gene Fusco.[1]

After a personal contact has been made and the proposed research discussed with selected individuals, it is appropriate to call a conference. While it might be plausible to announce an open meeting without first soliciting the cooperation of potential leaders, the personal approach has proved more fruitful. Also, if it is at all possible, each person invited should receive, prior to the scheduled meeting, printed material dealing with the dropout problem in general.

Several excellent films are available which have been used to advantage in opening such conferences. They are: "When I'm Old Enough, Goodbye"[2], "The Hurrying Kind"[3], "I Never Went Back"[4], "The Dropout"[5], "Children Without"[6], and "Jimmy" —The Dropout Who Returned.[7] In addition to films, related literature and pamphlets have also been used for this purpose with good results. Examples of such publications are: *High School Dropouts: A 20th Century Tragedy* from the U. S. Department of Health, Education and Welfare, Office of Education (1963); the U. S. Navy's *Stay In School* booklet; the NEA Project on School Dropouts *Research Memorandum;* the U. S. Department of Labor's *Keep Them In School* (1963).

The program might also include a speech by one whose ability in conducting dropout studies has been demonstrated. A guest speaker might, for example, speak on the topic, "Reasons For and Outcomes of Dropout Research." An open discussion following this kind of presentation is often helpful.

An important item on which consensus and understanding is needed is agreement on a definition regarding the population to be surveyed. Fortunately, there is now reason to be optimistic in this area. During the past five years, more than 250 representatives of ten national education organizations, including the National Education Association, have participated directly in a cooperative effort to arrive at agreement on terms and items of information significant in pupil accounting. The results of this labor, a U. S. Office of Education handbook for pupil accounting published in November 1964, contains several categories of items related specifically to accounting for dropouts. The following definition of a dropout, which appears in the handbook, should be distributed to those attending the first meeting.

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[1] *Citizens Committees . . . for Better Schools,* by Gene C. Fusco, U.S. Office of Education, Washington, D. C. (1964).

[2] Produced by the U.S. Employment Service, the film is available for loan through State Employment Agency or Local Public Employment Offices. May be purchased from Louis deRochemont Associates, 380 Madison Avenue, N.Y. 17, N.Y. $53.80.

[3] Available for free loan from: Army Careers, U.S. Continental Army Command, Fort Monroe, Virginia.

[4] Produced by Charles Cahill & Associates, Inc., 5746 Sunset Blvd., Hollywood 28, California.

[5] Film may be rented through state or local health offices, public library or university film library. To purchase, write: International Film Bureau, Inc., 332 S. Michigan Avenue, Chicago 4, Illinois.

[6] and [7] Both are available for free loan from most state affiliates of the National Education Association.

> A *dropout* is a pupil who leaves a school, for any reason except death, before graduation or completion of a program of studies and without transferring to another school. The term 'dropout' is used most often to designate an elementary or secondary school pupil who has been in membership during the regular school term and who withdraws from membership before graduating from secondary school (Grade 12) or before completing an equivalent program of studies. Such an individual is considered a dropout whether his dropping out occurs during or between regular school terms, whether his dropping out occurs before or after he has passed the compulsory school attendance age and, where applicable, whether or not he has completed a minimum required amount of school work.[8]

Leadership and Responsibility

A temporary chairman usually directs proceedings during this initial meeting. However, it is recommended that little time lapse before the continuing project leadership is selected. Active rather than titular leadership is desirable, for while choice of an eminent personality as permanent chairman may have prestige value, this is of little consequence if his presence at future meetings is dubious or unlikely. The role, function, and responsibilities of the position of chairman should be determined and clearly defined at an early point in order that later questions regarding the province of his responsibility or authority need not arise.

Selection must also be made of an associate or working director whose task involves the actual process of research with all its components of distributing forms, compiling data and reporting findings. The level (state, city, district, or school) at which a study is conducted will determine whether the individual chosen should be an administrator, supervisor, guidance counselor, or instructor. By and large, responsibility for carrying out studies at the state level has been accepted by the Divisions of Research or Guidance and Testing in the state education agency. At the district and city level, guidance coordinators have usually assumed leadership. In local communities and individual schools the principal or guidance counselor has often directed this phase of the project. In any case, the schedule of the working director ought to be sufficiently revised so as to allow him time for adequate attention to the project. Again, the role, function, and responsibilities of a working director should be clearly defined at the start.

Other associate positions of leadership may be deemed necessary by the steering committee depending on the scope and nature of the investigation, the availability of funds and personnel, and the time scheduled for the project. It is particularly important to mention here that coordinated public relations is the one responsibility incumbent on all who are affiliated with the study. This task may require exorbitant energy expended in talks to civic and community groups, reports on radio and television, and interviews with members of the press. If the intended study is statewide, long trips are conceivable for spokesmen of the project. Sometimes these chores may seem extraneous to the real issue of research. Yet, it is vital that the public be aware of the schedule at each phase so that misunderstanding is unlikely to ensue. Information regarding purpose, timing, pilot ventures, and financing should all be subjects for public consumption. When public relations is considered a germane part of the project procedures, there is reason to be optimistic that resultant findings and recommendations will be less susceptible to disfavor or resistance for circumstantial reasons. If the research results should reveal unfavorable dimensions in the community and its schools then, hopefully, ameliorative steps can be taken with full public support and the utilization of public funds.

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[8] John F. Putnam and George G. Tankard, Jr., *Pupil Accounting for Local and State School Systems*. Washington: U.S. Government Printing Office, 1964. U.S. Department of Health, Education, and Welfare, Office of Education, State Educational Records and Reports Series: Handbook V, Bull. 1964, No. 39.

CHAPTER IV

The Guidance Form for Individual Pupils: Dropouts and Potential Dropouts

Criteria for Selection of Items

A number of considerations necessarily preface data gathering in dropout studies. Chief among these is the selection of significant items of information and the development of an appropriate reporting form about individual dropouts. The development of a form and the items included therein should be based on criteria such as the following:

- Information requested should be widely available and easily accessible in those schools and systems participating in the study.
- Items of information requested should be as comprehensive, useful, and discriminative as possible.
- Whenever possible, questions should require exact answers.
- Instructions accompanying the form should include special definitions, and directions for completion.
- Questions should be so constructed as to provide for ready transfer of information to cards and magnetic tape for mechanical and electronic data processing. At the same time, hand-scoring should also be possible.
- The form should include a built-in system of double-checking responses.
- Size of the form should be in keeping with available record storage facilities.
- It should be possible to complete the form in a reasonable amount of time.
- Cost of reproducing the form should be economically feasible.
- The nature of information requested should readily lend itself to widespread comparability between and among schools, school systems, counties, and states.

Items of Information Selected

In an attempt to encourage more comprehensive and comparable studies, the NEA Project on School Dropouts in cooperation with the U. S. Office of Education has developed a list of items of information which largely meets the aforementioned criteria.

This list contains 42 items of information which are grouped into eight sections as follows:

Section I consists of items of information that identify the *administrative units* for which the dropout study is conducted. The scope of investigation can vary in size from a statewide study to a study of an individual school. This section of the form permits comparison of research findings among similar and dissimilar sized schools within a system, county, or state; school systems within a county or state; and counties within a state.

Section II deals with the *identification of the pupil* according to sex, race, and ethnic origin. While the latter two items are optional, more than likely some research efforts will wish to include them in order to ascertain the comparative incidence of dropout among various elements of the pupil population. Findings from this section will usually provide indicators for schools as to where new or additional efforts can profitably be directed.

Section III concerns the *school status* of a dropout at the time of his discharge from membership. Using this information, it is possible to determine the most common times of year, including vacation periods, when most dropping out takes place. It is also possible, with this information, to identify the median pupil age and the most common grade levels at which dropping out occurs. Changes in the age at time of withdrawal or in the grade level at exit serve as useful indices of school holding power improvement. Attendance data is an aid for detecting likely dropouts and can contribute to an understanding of pupil failure in the classroom. Both proximity of pupil residence to school and hours employed per week have implications for attendance and academic performance; they may also prevent participation in other aspects of school life which have significant influence on holding power.

Section IV offers a view of *school performance* with items relating to academic potential, placement, and progress. An appropriate program of studies, based on intelligence and aptitude, is requisite to pupil success and satisfaction. The problem of age-grade placement, indicating whether a pupil is older than his classmates, bears attention in order that deleterious outcomes of poor attendance and exclusion by peers can be avoided. Similarly, reading level information should be considered in pupils' homework assignments, in providing necessary remediation, and in assessing scholastic progress. Estimated rank in class and general scholastic achievement at several school grade levels, as well as subjects failed at the last report, have implications for curriculum and instruction, counseling and guidance, course selection and programming, and evaluation of pupil achievement.

Section V includes *family background* data which is useful in working with the home to remove situational or environmental obstacles which may retard pupil progress. Knowing the educational and occupational levels of parents can provide clues as to how families might best be approached, given guidance, or stimulated to support and reinforce school programs. It is necessary to know the economic status of the pupil's family, the number of siblings, and the adult guardian with whom he lives since these factors influence home study conditions, levels of aspiration, after-school employment, and regularity of school attendance and, therefore, directly affect success in school. The length of time dropouts resided in a district is a consideration in developing or assessing programs of early intervention.

Section VI enumerates the *reasons for dropping out* as perceived by both the pupil and his school. Up to now, in the absence of a common list of reasons with widely accepted definitions, there has been little comparability between studies. The pupil is called upon to designate from a given listing one principal and one additional reason for leaving. These nineteen reasons have been keyed to those developed and included in *Pupil Accounting for Local and State School Systems,*[1] published by the U. S. Office of Education. Similarly, the school, represented by a joint evaluation of staff members who have worked with the pupil, can designate one principal and one additional reason. The reasons given by both sources can be used to ascertain needed changes in school programs and procedures, to determine problem areas of interpersonal relations within or outside the school, and to increase staff understanding and effectiveness in the classroom.

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[1] Putnam and Tankard, *op. cit.*, pp. 54-56.

Section VII contains items that pertain to *pupil adjustment* both in- and out-of-school. Since continued attendance beyond the compulsory age depends in part upon whether satisfying relationships are sustained in school, there is need to know the extent to which pupils are accepted by their classmates. Then too, the lure of leaving school may be increased when closest friends are no longer attending schools. Extracurricular activities can be influential in holding some pupils but the very pupils needing such activities most may shun participation for interpersonal or other reasons. The number of schools a pupil has attended can affect his school achievement, adjustment and placement. The pupil's disciplinary record, as well as all the other adjustment facets in this section, is a symptom that precedes or accompanies school difficulties and as such it can be used as a guide for assistance rather than justification of pupil failure.

Section VIII refers to *efforts made by the school* to help pupils remain in school. Items in this section encourage schools to review whether guidance, curricular adjustment or employment assistance was provided prior to the time of dropping out, and whether parental contact was made or parental support was forthcoming in the attempt to persuade pupils to remain for graduation. Data regarding the frequency, conduct, and outcome of exit interviews can be valuable in determining areas in which greater concentration is needed to prevent failure and dropping out of school. Also, where exit interviews are held, they may be used to indicate possibilities for helping out-of-school youth continue their education in ways other than attendance in day schools.

A tabular listing of the different sections and items of information follows:

Section Item of Information

- I. School Identification
    - County
    - School System
    - School
    - School Membership.
- II. Pupil Identification
    - Sex
    - Race (optional)
    - Ethnic Origin (optional).
- III. Pupil Status At Time of Dropping Out
    - Date of Exit
    - Age at Exit
    - Grade at Exit
    - Regularity of Attendance
    - Miles from Home to School (optional)
    - Miles from Home to Bus (optional)
    - Employment: hours per week.
- IV. Pupil School Performance
    - Program of Studies
    - I. Q.—Scholastic Aptitude
    - Years Since Last I. Q. Test
    - Age-Grade Placement: Years above or below
    - Estimated Reading Level: Years above or below
    - Estimated Rank in Class
    - General Scholastic Achievement
    - Number of Courses Failed at Last Report.
- V. Pupil's Family Background
    - Highest Grade Completed by Father
    - Highest Grade Completed by Mother
    - Occupation of Father
    - Occupation of Mother
    - Pupil Living With
    - Number of Siblings at Residence
    - Economic Status of Residence
    - Annual Family Income (optional)
    - Time in School District.

VI. Pupil and School Reason for Dropping Out
    - Principal Pupil Reason
    - Additional Pupil Reason
    - Principal School Reason
    - Additional School Reason.

VII. Pupil Adjustment
    - Number of Extra-Curricular Activities
    - Acceptance by Peers
    - Are Closest Friends Out-of-School?
    - Disciplinary Record
    - Number of Elementary Schools Attended
    - Number of Junior High Schools Attended
    - Number of Senior High Schools Attended.

VIII. School Efforts
    - Special Efforts Made by the School
    - Exit Interview with Whom?
    - Whose Idea to Leave School?
    - Would Stay in School if
    - Future Educational Plans
    - Was Parent Contacted?
    - Parent Attitude Toward Dropping Out.

Model Guidance Form for Dropouts

A model guidance form for the individual dropouts and potential dropouts—with instructions for completing the form—is reproduced in Appendix A, page 59 by special permission. The form, a single 8½ by 11 inch sheet printed on both sides, contains the 42 items mentioned above and has space for pupil and school identification. Completion of the form is rather simple and not time consuming because no detailed writing is required—only the blocking out of coded numbers. The 42 items are divided into 80 columns, each of which requires a response by the person completing the form. These responses, the blocking out of numbers, can be easily hand-scored or transferred to computer cards or magnetic tape for electronic data processing. The form largely satisfies the criteria mentioned earlier in this chapter.

A Tool for Guidance

The guidance study form has another important use—as a preventive of school failure. Many programs for the so-called potential dropout are focused on certain characteristics believed to be unique for those who leave school before graduation. However, in the absence of comparative data for graduates, it has not been known whether these characteristics are shared by their peers who remain to graduate. For this reason juxtaposition of informational items about dropouts and graduates can be helpful. It is possible to improve the chances of success for many pupils if we can determine what environmental conditions that typically are absent in the backgrounds of those who drop out act to facilitate school progress among persisters. Conversely, it is helpful to know about those conditions which commonly occur in the lives of dropouts and deter their progress and which typically are absent in the lives of persisters.

In order that such knowledge may be forthcoming, the NEA Project on School Dropouts recommends that a form similar to the model presented in Appendix A be completed, insofar as possible, for every pupil in junior and senior high school. Completion of this form both for pupils who later drop out and for those who graduate will allow schools to ascertain distinguishing characteristics between the two groups that might aid in strategies of intervention. For example, in a broad context, it is possible by comparing dropouts and graduates to answer such questions as:

- In what ways, if any, do the environmental conditions (family background) of graduates and dropouts differ? (Items 22-29)

- What scholastic differences distinguish the persister from the dropout? (Items 14-21)
- How do dropouts and graduates compare in terms of adjustment to school? (Items 31-34)

In addition to differentiating characteristics of dropouts as compared to those of graduates, the form also has valuable use as a guidance tool. When predictive indices of withdrawal are apparent in advance, the counselor has an opportunity to review related factors which could facilitate the premature break with school. For example, a possible warning such as failure in all major courses on the last report would suggest examination of other items such as program of studies, I. Q. or other tests, reading achievement, acceptance by peers, and special efforts by the school. Similarly, if reading level is so low as to cause concern, items like age-grade placement, regularity of attendance, number of schools attended, general achievement, and special school efforts might be examined. Sometimes, an effect rather than a cause may be evident. For example, poor attendance is a symptom, the cause of which might be found by careful scrutiny of other items which may bear on this behavior, such as teacher-pupil relationships, closest friends out-of-school, acceptance by peers, out-of-school employment, economic status of home, illness, age-grade placement, or number of siblings in the residence. This makes early determination of cause an indicator of "dropout proneness" rather than a fact obtained through later followup efforts. Only when this type of early and routine review is conducted can preventive efforts be applied.

This kind of form if filed in the pupil's cumulative record folder can also be used profitably as a quick reference device by the counselor prior to an interview with a pupil. A good deal of statistical and background information is readily and quickly available in this way. The counselor is thus able to save time in that he need not go through multitudinous records and forms to get preliminary data, although obviously other records must still be utilized when the counselor seeks to know the pupil in greater depth.

When dropping out does occur, the form can provide information about whether or not the school itself fosters conditions that tend to induce dropping out. From items such as 'reason for dropping out', and 'would have stayed if', insight is gained into aspects of instruction and school life that might not otherwise be available. Examining 'special efforts made' and 'acceptance by peers' can indicate to a school whether its attempts to provide an appropriate curriculum and conditions for study are as extensive or effective as they should be. Finally, information regarding the grade levels, pupil ages, and times of year during which most dropouts leave can serve as a guide for scheduling stay-in-school activities and programs.

CHAPTER V

Methods of Calculation of Holding Power and Dropout Rates

Rationale

The use of different methods of computation in determining holding power and dropout rates has resulted in many studies which cannot be compared meaningfully, and much of the potential value to be derived from studying dropouts is diminished when researchers do not use the same items of information or do not follow the same arithmetic procedures. In order to compare results from many different studies it is necessary to utilize, as a basis for computation, like items of information that are easily available and readily obtainable. In addition, the definitions of the dropout and of the pupil populations under study must be uniform. When studies utilize the same methods of computation based on the same items of information and definitions, data from different sources can be combined directly for totals; results can be used for comparative purposes and information can be easily understood when exchanged or communicated. The method of calculation presented here has been prepared by Project on School Dropouts in consultation with the research staffs of the National Education Association and the U. S. Office of Education. This method, in general, satisfies the criteria of accessibility and availability of like items of information, and, hence, permits comparison of results. Two informational items in this system—the beginning date for calculation and arithmetic accountability—have been defined *a priori* and have been accepted by both staffs.

Beginning Date for Calculations

In computing holding power and dropout rates, there must be a beginning date from which the rates are determined, a date on which information required for calculation is easily accessible and readily obtainable. July 1 is suggested as the beginning date because all 50 state education agencies require the school systems within the state to file an annual pupil accounting report as of either June 30 or the end of the academic year. Only 44 state education agencies require a fall report, on about October 1, which includes information about pupils. In addition, July 1 coincides with the beginning of the fiscal year in most states. Hence the annual cycle for study parallels both the mandated pupil accounting report and the fiscal year—July 1 to June 30.

School Membership

School membership is on-going and continuous. A pupil is a member of a class[1] or school from the date he enters until he withdraws by completing his school work, transferring, dropping out, or dying. There should be no need for a pupil to re-register every year. School systems which require all pupils to re-register every fall after the summer vacation are, in effect, treating membership as a discontinuous occurence. In such a situation, there is no carry-over of membership from the previous year and the school starts each academic year with a new membership. Hence, under this method of pupil accounting, there can be no summer dropouts; and, it is difficult, if not impossible, to compare the holding power and dropout rates of such a school with one that treats membership as continuous.

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[1] A distinction should be made between the items *class* and *Class*. A *class* is defined as " a group of pupils assembled for instruction for a given period of time under one or more teachers in a situation where the teacher(s) and the pupils are in the presence of each other." As used in this publication, a *Class* consists of a group of pupils who enter a secondary school at about the same time and, on making normal progress in their schoolwork, graduate at the same time, e.g., the Class of 1965, or the Senior Class.

A school should know and should want to know the number of pupils expected in the fall; and, knowing this, it is rather simple to keep a count of the number of pupils who drop out during the entire school year, July 1 to June 30.

Date of Withdrawal

The date of withdrawal from membership is the first day after the date of last attendance, if known; otherwise, the date of withdrawal is considered to be the date on which it becomes known that the pupil left.[2] It is suggested that a pupil who doesn't return to school in the fall be considered as, and counted as, a summer dropout, i.e., withdrew from school in July. Some school systems may find it advisable to wait until the end of the first school week before removing the pupil from membership, while others may want to wait until the end of the month, i.e. the day before the fall survey. In either case, if the pupil has not been in attendance, even once, during this period of time, he is counted as a summer dropout. However, if the pupil does report to school during the first month, usually September, and then withdraws, he is counted as a September dropout and not a summer dropout.

To reiterate, both the Project on School Dropouts of the National Education Association and the Educational Records and Reports Section of the U. S. Office of Education strongly recommend and urge school systems to treat membership as continuous and ongoing.

Arithmetic Accountability

Second, there is need for an arithmetic base from which all computations will proceed. This base, called arithmetic accountability, serves to determine the number of pupils for whom a school or school system is arithmetically accountable during the period of time under study. At any given time during the year a school is arithmetically accountable for its pupils in membership plus those who have dropped out. *Membership* is the number of pupils on the current roll of a school as of a given date. However, for the purpose of dropout studies the date for determining arithmetic accountability is June 30. Thus, *arithmetic accountability* means that an institution is responsible for all pupils in membership at the end of the school year, June 30, plus end-of-year graduates and those pupils who were graduated during the preceding summer and at mid-year; plus those pupils who have dropped out during the year.[3] Schools are not arithmetically accountable for those pupils who, during the year, have transferred to other schools or who have died.

The formula for arithmetic accountability follows:

$$\text{Arithmetic Accountability} = \begin{array}{l} \text{End-of-year Membership (June 30)} \\ + \text{ All Graduates} \\ + \text{ Dropouts (July 1 to June 30)} \end{array}$$

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[2] Putnam and Tankard, *op. cit.* p. 102.

[3] For purposes of determining arithmetic accountability, pupils who complete "equivalent programs" (e.g., mentally retarded pupils who are 18 years of age) are counted with the graduates. See the definition of *dropout* on page 16 or page 72.

There have been suggestions that average daily membership, ADM, be used for arithmetic accountability. It was discarded because of arithmetic inconsistencies which occurred when it was tried out. For example, two schools with the same membership and the same number of dropouts would have different holding power and dropout rates depending on the time of year when dropping out occurs. If in School A, most dropping out occurs in October while in School B it occurs in May, then School A would have a higher dropout rate because its ADM would be a smaller number.

Dropout Returnee

Many school systems, stimulated by the President's Summer Dropout Campaign of 1963 and the National Education Association's *Each One Reach One* Project, have made concerted efforts to encourage dropouts to return to school. Reports indicate that these campaigns have been successful; sometimes the dropout returns during the same term and sometimes he returns after being out of school for one or two years. In general, the suggested methods of pupil accounting are attentive to the dropout returnee.

Dropout Returnee—Same Term

A dropout who returns to the same school during the same academic year is considered a reentry[4] and not a dropout for the purpose of arithmetic accountability. If he drops out again, he is counted as a dropout only once and not twice. Hence, the number of pupils who have dropped out refers to the number of *different pupils* who have dropped out and did not return to school. If repetitive dropping out were to be included in the calculations, a school which had a policy of encouraging dropouts to return would be at a disadvantage in computing arithmetic accountability. For example, under this method, a school with a membership of 1,000 pupils, which had the same 100 dropouts returning and dropping out again ten times during the school year, would have 1,000 dropouts—an absurdity.

Dropout Returnee—Succeeding Year

The dropout who returns to school one, two or three years later is counted as an original entry and not as a reentry. The reason is that since he has not been in membership during the current term he cannot be counted as a reentry but must be counted as an original entry. The definition of an original entry (E1) is: A pupil who for the first time in the United States or its outlying areas enters either a public or non-public elementary or secondary school during the regular school term for which the report is made.[5]

Hence, a dropout who returns to school one or more years after dropping out becomes arithmetically accountable to the Class he enters. However, since he was also arithmetically accountable to the Class he left, he is, unfortunately for accounting practices, counted twice, once as a dropout from his original Class and now as a member of a new Class. And if he were to drop out again, he would appear in school statistics as two dropouts, not one. If a school has a large number of such pupils, it may find it desirable to recalculate its holding power or dropout rate, in order that these pupils not be counted as two people in the computations.

Number of Former Dropouts

It is important to account for all dropouts who subsequently return to school. In addition to being recorded as an entry or reentry at his new school, each such pupil also should be identified separately as a former dropout.

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[4] Putnam and Tankard, *op. cit.* page 40. *Reentry From the Same Room in the Same School After Withdrawal or Discharge* (R6)—A pupil who returns to the same room in the same school after withdrawal or discharge from this room earlier in the *current* regular school term, and who has *not entered* any other school during the intervening period.

[5] *Ibid.* p. 39.

Where an attendance register is maintained by a classroom teacher, the teacher may indicate that the pupil was a dropout from his last school attended by adding the suffix "D" to the appropriate entry or reentry designation,[6] e.g., "E1-D" describes the pupil who begins school in the fall but who left the school previously attended by dropping out; and "R6-D" and "R1-D" indicate pupils who reenter the same school after dropping out earlier in the same regular school term ("R6-D" being used in all situations except where homeroom registers are kept and the pupil's name is transferred from one homeroom register to another).

Similarly, where school attendance records are maintained in the principal's office, the indication that the pupil was a dropout from the last school attended may be indicated by adding the suffix "D" to the appropriate entry or reentry designation on the registration form (or by checking "D" or "Dropout" on a registration form, or by punching an appropriate location on a data processing card).

Using such an arrangement, a school or school system may readily determine the number of pupils who resume their education this year in this school or school system by adding the number of pupils who dropped out during a previous regular school term (i.e., designated *E1D)* to the number who dropped out and returned during the current regular school term (i.e., designated *E2D, R1D,R2D,R3D,R4D,R5D,R6D, or R7D).* If desired, further check of the records can indicate the number of pupils who had been recorded as dropouts but resumed their education at an earlier time in either this or another school or school system.

Holding Power—Annual

The *annual holding power* is defined as the percent that the number of pupils in end-of-year membership is of the number of pupils for whom the school is arithmetically accountable for the period July 1 to June 30. Arithmetic accountability is equal to end-of-year membership, plus all graduates, plus the number of dropouts during the period July 1 to June 30. The holding power can be found by dividing the number of pupils in end-of-year membership plus graduates for the year by the number in arithmetic accountability. It is useful in comparing holding power among schools and in comparing the holding power of one school or school system for different years.

The formula used in calculating the annual holding power is:

$$\text{Annual Holding Power} = \frac{\text{End-of-year Membership (June 30)} + \text{Graduates}}{\text{Arithmetic Accountability (June 30)}}$$

where arithmetic accountability equals end-of-year membership, plus graduates, plus the number of dropouts for the period July 1 to June 30.

Holding Power—Cumulative

This cumulative holding power for a Class as it moves through successive grades is defined as the percent that the number of graduates is of the total number of pupils for whom the Class is arithmetically accountable on June 30 of the graduating year. It may also be calculated for a specified period of time from one given school year until some succeeding school year, not necessarily terminating with graduation. It is useful in comparing holding power among schools, and in comparing the holding power of different Classes in the same school.

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[6] Designations and definitions for *entries* and *reentries* are included on pages 46 and 47.

The formula used in calculating the cumulative holding power of a Class is:

$$\text{Cumulative Holding Power} = \frac{\text{Number of Graduates (end-of-year, mid-year, and summer)}}{\text{Arithmetic Accountability}}$$

where arithmetic accountability equals number of graduates (end-of-year, mid-year, and previous summer) plus dropouts for the entire period of time. Twelfth grade holdovers are not counted. The number of pupils graduating in summer and mid-year are added to the number of June graduates since they are members of the same graduating Class. For example, the graduating class of 1965 includes those who were graduated in summer school 1964, mid-year 1965, and June 1965.

Since cumulative holding power refers to the percent of a Class that graduates rather than to the percent held in school, pupils of the 12th grade who do not graduate with the Class—i.e., holdovers—are subtracted from end of year membership for the Class and become arithmetically accountable to the succeeding Class. The number of end-of-year graduates is equal to end of year membership for the Class minus 12th grade holdovers.

The reasons for reducing arithmetic accountability by subtracting the number of twelfth grade holdovers is that they will continue in membership in the school. They have neither graduated with their Class nor dropped out. Since they are in school, and hopefully will remain through graduation, they become arithmetically accountable to the succeeding Class. Similarly pupils held over in previous grades became arithmetically accountable to the succeeding Class to which they were assigned. Since the practice of nonpromotion is operative in most school systems, almost every Class receives holdovers from the Class which precedes it, and leaves holdovers to the Class that follows; and, unless promotion policies are changed drastically and suddenly, the number retained at different grades every year is fairly constant. In effect, then, the number of pupils who are not promoted as a Class moves through successive grades in a school is approximately equal to the number of pupils it receives as holdovers from the Class that precedes it in school.

It is possible to achieve a more accurate cumulative holding power, but because it involves more detailed record keeping (with additional financial costs) and a longer waiting period, it may not be practical or necessary for the average school to use this procedure. The procedure is to keep intact the pupil personnel record cards of each Class as it enters the school, adding the records of those pupils who transfer in during the base period and removing from the active file the records of those pupils who transfer out of the school or die as the Class moves through successive grades. Then the records are checked one, two, and three years after the Class should have graduated until all the members of the original Class have left the school by any of the four ways of withdrawing, that is, by transferring, by dropping out, by death, and by graduating or otherwise completing their school work. The records of each pupil who drops out and returns later to the same school are placed again in the active file until the pupil leaves permanently.

However, if the data from the pupil's permanent record card has been transferred to an electronic data processing computer, then the difficulties mentioned in finding the exact cumulative holding power for the Class are obviated. But the school would still have to wait from one to three years after the Class graduated to calculate the holding power.

Since the method and procedures outlined here with the formula above enable a school to calculate its holding power with a fairly high degree of accuracy, and within weeks after the Class has graduated, it is suggested that this method be used.

Note: The number of graduates refers to those pupils who were in membership in *day time* classes only, and does not include graduates from evening high school programs or adult education programs, or recipients of equivalency diplomas.

Dropout Rate—Annual

The annual dropout rate for a school or system is defined as the percent of pupils for whom the school system was arithmetically accountable on June 30 who dropped out between July 1 of the preceding year and June 30 of the following year.

The formula used in calculating the rate is:

$$\text{Annual Dropout Rate} = \frac{\text{Number of Dropouts(July 1 to June 30)}}{\text{Arithmetic Accountability (July 1 to June 30)}}$$

Dropout Rate—Cumulative

The cumulative dropout rate for a Class as it moves through successive grades to graduation is defined as the percent of pupils for whom a school was arithmetically accountable on June 30 of the graduating year who dropped out during the specified period of time. The formula used in calculating this rate is:

$$\text{Cumulative Dropout Rate} = \frac{\text{Number of Dropouts (for period of time)}}{\text{Arithmetic Accountability (for period of time)}}$$

where arithmetic accountability equals the number of graduates (end-of-year, mid-year, and previous summer) plus the number of dropouts for the entire period of time. Twelfth grade holdovers are not counted in arithmetic accountability.

A full discussion as to reasons for not counting the number of 12th grade holdovers is given in the section discussing cumulative holding power.

Formula Relationship

In practice, it is not necessary, except as a check in mathematical procedures, to calculate the holding power and dropout rates separately. This is so because the number held plus the number who dropped out is equal to the total population. It is expressed by the formula:

$$\text{Holding Power} + \text{Dropout Rate} = 1.00$$

If the holding power is known, the dropout rate can be found by subtracting the holding power from 1.00.

Illustrative Examples

Using the formulas developed previously, it is possible to compute holding power and dropout rates for either annual or cumulative (longitudinal) studies. Annual studies are conducted for a single year (July 1 to June 30) and may deal with a particular grade, school, school system, county or state. Longitudinal studies are designed to examine the cumulative effect of dropping out for a graduating Class or other pupil group over a specified period of time. Usually, a longitudinal study begins when a Class enters a school (grade 7, grade 9 or grade 10) and follows it through to graduation. For schools on semi-annual organization, the Class includes all members of a grade, e.g., the eleventh grade includes pupils in both 11A and 11B.

Methods of calculating and computing the various rates are illustrated in the examples that follow. In each case, the definition, purpose, data necessary, and the general formula will be cited. These will be followed in turn by a table giving the statistical information, substitution in the formula, calculation of the rate, and, finally, interpretation of the rate.

Annual Studies

Annual Dropout Rate for a School

Example: To calculate the Annual Dropout Rate for a single school, grades 10-12. (The same calculations may apply to a single grade, school system, county or state.)

Definition: The Annual School Dropout Rate for a given year represents the percentage of pupils for whom the school was arithmetically accountable on June 30 that dropped out between July 1 of the preceding year and June 30.

Purpose: Annual School Dropout Rate is useful in determining the incidence of dropping out during a year and for comparing rates among different schools or school systems.

Data Necessary: End-of-year membership; number of pupils who transferred in, transferred out, died and were graduated; and the number of dropouts.

Note: Theoretically and actually, the necessary data are end-of-year membership, the number of graduates, and the number of dropouts. The number of transfers in, transfers out and deaths are not essential for the calculation of the rate. However, because many school systems regularly up-date their membership figures during the school year, especially after the Fall Survey, usually monthly or some other specified period of time, these three items become necessary factors in keeping membership figures current. Because of this, they are presented here as being requisite for the calculation of the rate. This comment applies to the remaining illustrative examples in this chapter.

General Formula: Annual School Dropout Rate is calculated by dividing the number of pupils dropping out between July 1 and June 30 by the number of pupils for whom the school is arithmetically accountable on June 30.

$$\begin{array}{c}\text{Annual Dropout Rate}\\ \text{For School}\end{array} = \frac{\text{Number of Dropouts (July 1 to June 30)}}{\text{Arithmetic Accountability (July 1 to June 30)}}$$

where arithmetic accountability is equal to end-of-year membership plus graduates during the year plus dropouts.

End-of-year membership can be more than, less than, or the same as beginning of year membership which preceded it depending upon the number of pupils who transfer in, transfer out, die, or drop out. End-of-year membership will be:

More than the beginning-of-year membership which preceded it when the number of in-transfers exceeds the combined sum of transfers out, dropouts, and deaths. (See grade 12 on page 30.)

Less than the beginning-of-year membership which preceded it when the sum of out-transfers, dropouts, and deaths exceeds the number of pupils transferring in. (See grade 11 below.)

The same when the number of in-transfers is equal to the number of out-transfers, dropouts, and deaths. (See grade 10 below.)

Table I
Changes in School Membership
Single Year (July 1 to June 30)

Grade	Membership July 1	Transfers In	Transfers Out	Graduates	Deaths	Dropouts	End of Year Membership	Arithmetic Accountability
12	60	6	3	61	0	2	0	63
11	70	10	30	—	1	4	45	49
10	90	20	10	—	0	10	90	100
Total	220	36	43	61	1	16	135	212

Calculation:

End-of-year Membership:	135
Number of Dropouts:	16
Number of Graduates:	61
Arithmetic Accountability:	212

$$\text{Annual Dropout Rate} = \frac{\text{Number of Dropouts}}{\text{Arithmetic Accountability}}$$

$$= \frac{16}{212}$$

$$= 7.5\%$$

Interpretation: 7.5 percent of the pupils for whom the school was arithmetically accountable dropped out between July 1 and June 30.

Annual Holding Power for a School

Example: To determine the Annual Holding Power for a single school, grades 10-12; the same calculations apply to a single grade, school system, county, or state.

Definition: The Annual School Holding Power represents the percentage of pupils for whom the school was arithmetically accountable on June 30 who were in membership at the end of the school year plus those who graduated during the year.

Purpose: The Annual School Holding Power is useful in comparing holding power among different schools and for the same school in different years.

Data Necessary: End-of-year membership; number of pupils who transferred in, transferred out, died and were graduated; and the number of dropouts.

General Formula: The Annual School Holding Power is calculated by dividing the end of year membership plus graduates by the number of pupils for whom the school is arithmetically accountable on June 30.

$$\text{Annual Holding Power For a School} = \frac{\text{End-of-year Membership (June 30) + Graduates}}{\text{Arithmetic Accountability (June 30)}}$$

where arithmetic accountability equals end of year membership plus graduates during the year plus dropouts.

Table 2

Changes in School Membership

Single Year (July 1 to June 30)

Grade	Membership July 1	Transfers In	Transfers Out	Graduates	Deaths	Dropouts	End of Year Membership	Arithmetic Accountability
12	60	6	3	61	0	2	0	63
11	70	10	30	—	1	4	45	49
10	90	20	10	—	0	10	90	100
Total	220	36	43	61	1	16	135	212

Calculation:

End-of-year Membership:	135
Number of Dropouts:	16
Number of Graduates:	61
Arithmetic Accountability:	212

$$\text{Annual Holding Power} = \frac{\text{End-of-year Membership + Graduates}}{\text{Arithmetic Accountability}}$$

$$= \frac{135 + 61}{212} = \frac{196}{212}$$

$$= 92.5\%$$

Interpretation: 92.5 percent of the pupils for whom the school was arithmetically accountable were held in school between July 1 and June 30.

Note: It is unnecessary to compute **both** the annual holding power and dropout rates since either may be found by subtracting the other from 100%. For example, in the illustrations presented here the annual dropout rate for the school was 7.5 percent. Therefore, 100% — 7.5% = 92.5% (Annual Holding Power). Conversely, when the annual holding power is known, the annual dropout rate can be ascertained by subtracting the holding power from 100%. In this case, 100% — 92.5% = 7.5% (Annual Dropout Rate). The holding power plus the dropout rate should equal 100%. Examples here were: 7.5% (Annual Dropout Rate) + 92.5% (Annual Holding Power) = 100%.

Annual Dropout Rate for a Grade

Example: To determine the annual dropout rate for a grade. The methods and procedures are the same as for a school. However, because the formula is broadened for the twelfth grade which includes in its arithmetic accountability summer and mid-year graduates, an example illustrating this problem is given.

Definition: The Annual Dropout Rate for a grade represents the percentage of pupils in a grade for whom the school was arithmetically accountable on June 30 who dropped out between July 1 and June 30. In schools on a semi-annual organizational plan, a grade includes all members of the grade on the last day of school which may precede June 30, e.g., the class of grade 12 includes all pupils in both 12A and 12B.

Purpose: Annual Dropout Rate for a grade is useful in comparing rates among various grades in one school or between different schools.

Data Necessary: End-of-year membership; number of pupils who transferred in, transferred out, died and were graduated; and the number of dropouts.

General Formula: The Annual Dropout Rate for a grade is calculated by dividing the number of pupils dropping out from the grade between July 1 and June 30 by the number of pupils in the grade for whom the school was arithmetically accountable on June 30.

$$\text{Annual Dropout Rate} = \frac{\text{Number of Dropouts (July 1 to June 30)}}{\text{Arithmetic Accountability (June 30)}}$$

where arithmetic accountability equals end-of-year membership, plus graduates, plus dropouts.

Table 3

Changes in Grade Membership

Single Year (July 1 to June 30)

Grade	Membership July 1	Graduates			Transfers		Deaths	Dropouts	End of Year Membership	Arithmetic Accountability
		Aug.	Jan.	June	In	Out				
12	100	10	15	60	2	3	2	12	0	97

Calculation:

End-of-year Membership:	0
Number of Dropouts:	85
Number of Graduates:	12
Arithmetic Accountability:	97

$$\text{Annual Dropout Rate} = \frac{12}{97}$$

$$= 12.4\%$$

Interpretation: 12.4 percent of the pupils in the twelfth grade for whom the school was arithmetically accountable on June 30 dropped out between July 1 and June 30.

Annual Holding Power for a Grade

Example: To determine the Annual Holding Power for a grade the method and procedures used are identical with the methods and procedures used for a school. However, because the formula is broadened for the twelfth grade which includes in its arithmetic accountability summer and mid-year graduates, an example illustrating this problem is given.

Definition: The Annual Holding Power for a grade represents the percentage of pupils in a grade for whom the school was arithmetically accountable on June 30 who were in membership at the end of the year. In schools on a semi-annual organizational plan, a grade includes all members of the grade on the last day of school which precedes June 30, e.g., grade 10 includes all pupils in both 10A and 10B.

Purpose: The Annual Holding Power for a grade is useful in comparing rates among various grades in one school or among different schools or for comparing performance from one academic year to another.

Data Necessary: End-of-year membership; number of pupils who transferred in, transferred out, died and were graduated; and the number of dropouts.

General Formula: The Annual Holding Power for a grade is calculated by dividing the end of year membership plus graduates, by the number of pupils in the grade for whom the school was arithmetically accountable on June 30.

$$\text{Annual Holding Power} = \frac{\text{End-of-Year Membership (June 30)} + \text{Graduates (July 1 to June 30)}}{\text{Arithmetic Accountability (June 30)}}$$

where arithmetic accountability equals end-of-year membership plus graduates plus dropouts.

Table 4

Changes in Grade Membership

Single Year (July 1 to June 30)

Grade	Membership July 1	Graduates			Transfers		Deaths	Dropouts	End of Year Membership	Arithmetic Accountability
		Aug.	Jan.	June	In	Out				
12	100	10	15	60	2	3	2	12	0	97

Calculation:

End-of-year Membership: 0
Number of Graduates: 85
Number of Dropouts: 12
Arithmetic Accountability: 97

$$\begin{aligned}\text{Annual Holding Power} &= \frac{\text{End-of-Year Membership} + \text{Graduates (July 1 to June 30)}}{\text{Arithmetic Accountability (June 30)}}\\ &= \frac{85}{97}\\ &= 87.6\%\end{aligned}$$

Interpretation: 87.6 percent of the pupils in the twelfth grade class for whom the school was arithmetically accountable on June 30 were held in school between July 1 and June 30.
Note: This percentage is not necessarily the same as the percentage of twelfth grade pupils graduating. If all of the pupils graduated, then it is the same; but if some pupils were held over, it is not. In that case, the percent graduating would be smaller.

Cumulative or Longitudinal Studies

As a Class moves through successive grades its pupil composition rarely remains the same. Between the time of entrance in grade seven, nine, or ten and graduation from grade 12, the Class will change as new pupils transfer in, others transfer out, and some fall behind because of nonpromotion. Were the members of the Class to remain constant over a period of years, the method of calculating cumulative holding power and dropout rates would be extremely simple. However, since changes do occur the methods of calculation presented here are designed to account for them.

Cumulative Dropout Rate for a Class or Pupil Group

Example: To determine the cumulative dropout rate for a Class. The problem concerns a Class that entered grade 10 in July 1962 and graduated in June 1965. (The same calculations apply whether the Class is for a school, system, county, or state. They also apply to groups of pupils within the Class which are identifiable according to specified characteristics such as abilities, handicaps, environment, race, and education of parents.)

Definition: The Cumulative Dropout Rate is the percentage of pupils for whom the school is accountable who drop out as the original group moves through successive grades. The rate is found by dividing the number of dropouts by the number of pupils of the group for whom the school was arithmetically accountable on June 30 of the graduating year.

Purpose: The Cumulative Dropout Rate is useful in determining the incidence of dropping out for a Class or other pupil group as it moves through successive grades and for comparison with local, state, and national norms.

Data Necessary: End-of-year membership (June 30); the number of holdovers, transfers, and deaths; the number of summer, mid-year, and spring graduates; and the total number of dropouts for the three-year period.

General Formula: The Cumulative Dropout Rate is calculated by dividing the total number of dropouts for the period specified by the number of pupils of the group for whom the school was arithmetically accountable on June 30 of the graduation year. In the case of following a 10th grade class over a three-year period until graduation, the formula would be:

$$\text{Cumulative Dropout Rate (Class)} = \frac{\text{Number of Dropouts (for the three-year period)}}{\text{Arithmetic Accountability}}$$

where arithmetic accountability equals all graduates plus dropouts during the three-year period.

Note: Since the pupil group or Class itself graduates at a specific date, June 1965 in this illustration, it is assumed that members of the Class are not in school subsequent to that date. Hence, the twelfth grade pupils who do not graduate with their original Class (holdovers) become arithmetically accountable to the following Class, the Class of 1966. Similarly, pupils held over in grades 10 and 11 become arithmetically accountable to the following Class to which they are assigned. This is noted in the beginning of year membership in the illustrative example for grades 11 and 12, year 1963-64 and 1964-65, where the holdovers in grades 10 and 11 do not continue with the Class of 1965. Also pupils from the preceding Class who did not progress with their original group, the Class of 1964, as it moved through successive grades became arithmetically accountable to the Class of 1965. Since the practice of nonpromotion and acceleration is almost always operative in a school, it follows that each Class receives holdovers from the Class that precedes it, leaves holdovers to the Class that follows it, sends accelerated pupils to the Class that precedes it and receives accelerated pupils from the Class that follows it.

Table 5
Changes in Class Membership—Three Years

Grade	Year 19—	Membership July 1	Transfers In	Transfers Out	Deaths	Dropouts	Graduates Summer	Graduates Mid-Yr.	Graduates End of Yr.	End of Year Membership June 30	Holdovers to Following Group	Arithmetic Accountability For Year
10	62-63	150	12	10	1	25	—	—	—	126	5	151
11	63-64	130[1]	8	11	0	15	—	—	—	112	10	127
12	64-65	105[2]	1	2	1	5	4	6	86	0	2	103
TOTAL	—	—	21	23	2	45	4	6	86	—	17	—

[1] Membership, July 1, includes pupils who were promoted from grade 10 plus pupils who were held over from the preceding Class. In this case, the sum of 130 is found by adding the 121 pupils who were promoted to the 9 who were not promoted by the Class of 1964.

[2] Includes 3 pupils who were held over in grade 12, from the Class of 1964.

Calculation:

End-of-year Membership (June 30 graduating year):	0
All Graduates:	96
Dropouts (3 year interval):	45
Arithmetic Accountability (Class of 1965):	141

$$\text{Cumulative Dropout Rate (Class of 1965)} = \frac{\text{Number of Dropouts (3 year interval)}}{\text{Arithmetic Accountability}} = \frac{45}{141} = 31.9\%$$

Interpretation: 31.9 % of the pupils for whom the Class of 1965 was arithmetically accountable on June 30 of the graduating year dropped out between grade 10 and graduation.

Note: There is another way to compute arithmetic accountability. Starting with the number of pupils in membership on July 1, 1962, the beginning date, adding the sum of in-transfers and holdovers from the preceding class, and subtracting the sum of out-transfers, deaths and holdovers from the Class or group itself.

Initial membership	150	
Total In-transfers	21	
Total Out-transfers		23
Deaths		2
Total holdovers—not promoted with the Class		17
Total holdovers—from preceding Class	12	
Totals	183	42

Arithmetic Accountability = 183 − 42 = 141

The superior value of the first illustrative method rests on the fact that since arithmetic accountability is calculated for each year, as the Class moves through successive grades the annual dropout rate can be found at the end of each grade. In this way, a school can determine in what grade its greatest or smallest pupil loss occurs. This cannot be done with the other method.

Cumulative Holding Power for a Class or Pupil Group

Example: To determine the cumulative holding power for a class or pupil group. The problem concerns a Class or group that entered grade 10 in July 1962 and graduated in Spring 1965. (The same calculations apply whether the Class or group is for a school, a system, a county or a state.)

Definition: The Cumulative Holding Power for a Class as it moves through successive grades is defined as the percentage that the number of graduates is of the total number of pupils of the group for whom the school is arithmetically accountable on June 30 of the graduating year.

Purpose: The Cumulative Holding Power is useful in describing a Class or pupil group as it moves through successive grades and for comparison with local, state, or national norms, and for comparison with other Classes.

Data Necessary: End-of-year membership (June 30); the number of holdovers, transfers and deaths, the number of graduates (summer, mid-year, and end-of-year); and the number of dropouts for the three year period.

General Formula: The Cumulative Holding Power is calculated by dividing the number of graduates (summer, mid-year, and end-of-year) by arithmetic accountability. It is expressed by the formula:

$$\text{Cumulative Holding Power} = \frac{\text{All Graduates}}{\text{Arithmetic Accountability (June 30 graduating year)}}$$

where arithmetic accountability equals the number of graduates plus number of dropouts (for the period of time).

Note: Since the pupil-group or Class itself will graduate at a specific date, June 1965 in this case, it is assumed that members of the Class will not be in school subsequent to that date. Hence, the number of twelfth grade pupils who do not graduate with their original Class (holdovers) is subtracted from the end-of-year membership in the calculation and these pupils become arithmetically accountable to the following Class, the Class of 1966. Similarly, pupils held over in grades 10 and 11 become arithmetically accountable to the following Class to which they are assigned. This is noted in the beginning-of-year membership in the illustrative example for grades 11 and 12, year 1963-64 and 1964-65, where the holdovers in grades 10 and 11 do not continue with the Class of 1965. Also pupils from the preceding Class who did not progress with their original group, Class of 1964, as it moved through successive grades became arithmetically accountable to the Class of 1965. Since the practice of non-promotion and acceleration is almost always operative in a school, it follows that each Class receives holdovers from the Class that precedes it, leaves holdovers to the Class that follows it, sends accelerated pupils to the Class that precedes it, and receives accelerated pupils from the Class that follows it.

Table 6
Changes in Class Membership—Three Years

Grade	Year 19—	Membership July 1	Transfers		Deaths	Dropouts	Graduates			End of Year Membership June 30	Holdovers to Following Group	Arithmetic Accountability For Year
			In	Out			Summer	Mid-Yr.	End of Yr.			
10	62-63	150	12	10	1	25	—	—	—	126	5	151
11	63-64	130[1]	8	11	0	15	—	—	—	112	10	127
12	64-65	105[2]	1	2	1	5	4	6	86	0	2	103
Total	—	—	21	23	2	45	4	6	86	—	17	—

[1] Membership, July 1, includes pupils who were promoted from grade 10 plus pupils who were held over from preceding Class. In this case, the sum of 130 is found by adding the 121 pupils who were promoted to the 9 who were not promoted by the Class of 1964.

[2] Includes 3 pupils who were held over in grade 12, from the Class of 1964.

Calculation:

Number of Graduates—summer:	4
—mid-year:	6
—end-of-year:	86
Number of Dropouts (3 year interval):	45
Arithmetic Accountability:	141

$$\text{Cumulative Holding Power (Class of 1965)} = \frac{\text{Number of Graduates}}{\text{Arithmetic Accountability}} = \frac{96}{141} = 68.1\%$$

Interpretation: 68.1 percent of the pupils for whom the Class of 1965 was arithmetically accountable on June 30 of the graduating year graduated.

Note: It is unnecessary to compute both the cumulative dropout rate and the cumulative holding power since either may be found by subtracting the other from 100%. For example, in the illustration presented here the cumulative dropout rate for the school was 31.9 percent. Therefore, 100% − 31.9% = 68.1% (Cumulative Holding Power). Conversely when the cumulative holding power is known, the cumulative dropout rate can be ascertained by subtracting the cumulative holding power from 100%. In this case, 100% − 68.1% = 31.9% (Cumulative Dropout Rate). The cumulative holding power plus the cumulative dropout rate should equal 100%. Examples here were: 31.9% (Cumulative Dropout Rate) + 68.1% (Cumulative Holding Power) = 100%.

Special Computations for a Specific Group

As indicated in the preceding section, cumulative holding power and dropout rates may be computed for various pupil groups as they progress through the grades and as actual group membership changes due to nonpromotion, acceleration, and transfers in and out.

It may be desirable, in some instances, to identify a specific group of pupils (e.g., those participating in special experimental courses during a given year, or Negroes entering a newly-desegregated ninth grade in 1965-66) and follow their progress over a period of time. The period of time could extend beyond graduation, if desired. The purpose of such a computation is to determine later information such as the number and proportion of the original group that graduate from this or a similar school, die before completing secondary school, transfer to other schools, are still in membership in the school or school system after a given number of years, achieve specified scores on standardized achievement tests, are admitted to college, are graduated from college, are convicted for serious crimes, and enter various occupations.

The basis for computation is the number of members in the original group on a given date or during a given period of time. New pupils transferring into the class at a later time are excluded from calculations, and group members transferring out continue to be counted as a part of the base group, as is shown in the following illustrative formula:

$$\text{Percentage graduating from secondary school} = \frac{\text{Number graduating from secondary school}}{\text{Number of members in original group}} \times 100$$

Computations of this sort are not rates similar to the holding power and dropout rates described in this chapter, and should not be compared with these rates.

Comparison of Annual and Cumulative Holding Power and Dropout Rates

There is little, if any, numerical relationship between annual and cumulative holding power and dropout rates. The annual holding power is based on the number of pupils who remain in school during a school year or school term while the cumulative holding power is based on the number of pupils who enter as a group and remain to graduate some years later. The annual dropout rate is based on the number of pupils who drop out of school during the year while the cumulative dropout rate is based on the number of pupils who, after entering school with a Class or group, drop out of school as the group moves through successive grades to graduation. In both cases, arithmetic adjustments are made for in-transfers, out-transfers, deaths, accelerated pupils and pupils who are held back in a grade.

In order to simplify and clarify the differences, the discussion that follows will center around dropout rates; however, the same chain of reasoning applies to holding power differences.

In calculating annual dropout rates, some school systems define the school year as the period from July 1 to June 30; other school systems have considered it as the period between the opening of school in September and the last day of school in the spring, for example, from September 10 to May 25. School systems which use the shorter period of time usually do not include summer dropouts in counting the number of dropouts. However, in calculating cumulative dropout rates, a pupil should be counted as a dropout regardless whether he drops out during the regular school term or during the summer time. He is arithmetically accountable to the school from the moment he enters with his Class until he graduates or transfers to another school. Also, although the cumulative dropout rate is always greater than the annual dropout rate, it is never equal to the sum of the annual dropout rates for the same period of time.

The cumulative rate may be more or less than the sum of the annual dropout rates for the same period of time depending on whether or not summer dropouts are included in the annual calculation, but it is not equal to it.

The illustrative examples and tables that follow also may help to make clear the differences. Again in order to simplify the calculations, in-transfers, out-transfers, deaths, accelerated pupils, pupils who are held back in the grades, and dropout returnees will not be included.

Illustrative Example: **Cumulative dropout rate:** On July 1, 1961, 100 pupils entered grade 9 as the Class of 1965; 30 pupils dropped out during the period of time July 1, 1961—June 30, 1965. (Summer dropouts are shown separately for illustrative purposes.)

Table 7
Changes in Class Membership (Four Years)

Grade	Year	Membership July 1	Dropouts			Graduates	Membership June 30
			Summer	Regular	Total		
9	1961-62	100	1	4	5	—	95
10	1962-63	95	3	7	10	—	85
11	1963-64	85	4	6	10	—	75
12	1964-65	75	0	5	5	70	0
Totals:	—	—	8	22	30	70	—

$$\text{Cumulative Dropout Rate} = \frac{\text{Number of Dropouts (period of time)}}{\text{Arithmetic Accountability (June 30, 1965)}}$$

$$= \frac{30}{30 + 70} = \frac{30}{100}$$

$$= 30\%$$

The cumulative dropout rate for the Class of 1965 is 30 percent.

Illustrative Example: **Annual dropout rate:** On July 1, 1964, the number of pupils in membership at a 4-year high school was as follows: grade 9, 100; grade 10, 95; grade 11, 85; and grade 12, 75. By June 30, 1965, 30 pupils had dropped out. (The number of pupils in membership in each grade and the number of dropouts in each grade are the same as for the grades for the Class of 1965 in Table 7.)

Table 8
Changes in School Membership (Single Year)

GRADE	YEAR	Membership July 1	Dropouts			Graduates	Membership June 30
			Summer	Regular	Total		
9	1964-65	100	1	4	5	—	95
10	1964-65	95	3	7	10	—	85
11	1964-65	85	4	6	10	—	75
12	1964-65	75	0	5	5	70	0
Totals:	—	355	8	22	30	70	255

$$\text{Annual Dropout Rate} = \frac{\text{Number of Dropouts}}{\text{Arithmetic Accountability}}$$

$$= \frac{30}{30+70+255} = \frac{30}{355}$$

$$= 8.5\%$$

The annual dropout rate is equal to 8.5 percent.

If summer dropouts are excluded, then the arithmetic calculations become:

$$\begin{array}{l}\text{Annual Dropout Rate} \\ \text{(excluding summer dropouts)}\end{array} = \frac{\text{Number of Dropouts}}{\text{Arithmetic Accountability}}$$

$$= \frac{22}{355}$$

$$= 6.2\%$$

The annual dropout rate appears to be equal to 6.2 percent.

In neither case, although grade membership is the same, is the annual dropout rate equal to one-fourth the cumulative dropout rate. It is more than one-fourth when summer dropouts are included in the calculation, and less than one-fourth when they are excluded.

This chapter has shown the manner in which holding power and dropout rates should be calculated, whether for a single year or for a period of several years. Other types of relevant computations utilizing data about dropouts and routinely collected pupil accounting information are included in the following chapter (concerning the number and percentage of cases, central tendencies, range of distribution, and correlations of various items) and in Chapter VII which discusses rates of pupil mobility.

CHAPTER VI

Combining Dropout Data For Analysis

The success of a dropout study depends largely on the manner in which the data collected are combined for analysis. Easily obtained information when properly articulated permits comparisons between groups of pupils, identification of predisposing conditions, and a better understanding of the quantitative dimensions operative for the dropout population. Most items on the illustrative Guidance Form are so constructed as to involve a minimum of difficulty in grouping and tabulating. In fact, a majority of the items call for a simple response-choice from among several alternatives. The replies readily lend themselves to summary by determining the number and percentage of cases in which various alternatives are selected. Illustrative examples combining this type of information follow.

Determining Number and Percentage of Cases

Assume that we have separated out the forms for 50 pupils who dropped out of Marshall High School last year. To determine the kinds of curricular experiences these youths were involved in would require a frequency distribution of the pupils assigned to each program of studies. The number assigned to each program of studies would be divided by the total number of pupils to determine the percentage in each category.

Table 9

Program of Studies

Program of Studies (Item 14)	Dropouts Number	Dropouts Percent
Academic	10	20
Commercial	6	12
General	15	30
Special	4	8
Vocational	20	40
TOTAL	50	100

It appears that a greater number of dropouts came from vocational education than any other program of studies. Some questions that might be prompted by these findings are: Do all students assigned to vocational programs have aptitudes for such study? Is the curriculum in vocational education and general education relevant to the needs of the pupils? What are the reasons vocational and general education pupils give for leaving school? How are vocational and general educational pupils accepted by their peers? How did Marshall's 50 dropouts, as a group, fare scholastically? This can be determined by preparing a frequency distribution of academic rank in class. The number of pupils in each quartile would be divided by the total number of pupils to ascertain the percentage at each level.

Table 10

Rank in Class

Estimated Rank in Class (Item 19)	Dropouts Number	Dropouts Percent
Highest quarter	0	0
Next highest quarter	10	20
3rd highest quarter	10	20
Lowest quarter	30	60
TOTAL	50	100

Most of the pupils dropping out rank in the lowest quartile of their Class. Some directions of inquiry would include the relationship between rank in Class and program of studies, estimated reading level, and acceptance by peers.

Finding Central Tendencies

Combining data for some items goes beyond determining the number and percentage of pupils in given categories and includes finding measures of central tendency—mean, median, and mode. The 50 dropouts of Marshall High serve again as the sample group for the following illustrative example for which grade at exit is considered. After preparing a frequency distribution of number and percentage of pupils leaving at each grade, the mean, median, and mode can be determined as follows:

> *Median*—The median grade is found by counting (up from grade 9 or down from grade 12) the number of dropouts until the middle number is reached. In this case the middle number, as half of 50, is 25. The grade level designated by the middle number is the median grade.
>
> *Mode*—The modal grade is found by noting that grade level at which the greatest number of dropouts occur.
>
> *Mean*—The mean grade is found by multiplying the number of pupils dropping out at each grade by the grade level designated. Sum these products. Divide the total sum by the total number of pupils to find the mean grade.

Table 11

Grade at Exit

Grade at Exit (Item 10)	Dropouts Number	Dropouts Percent
9	10	20
10	25	50
11	10	20
12	5	10
TOTAL	50	100

Median Grade: 10; Modal Grade: 10; Mean Grade: 10.2.

Grade 10 represents the level at which dropping out is most likely to occur. Most dropout studies use the median as the measure of central tendency. In the illustrative example, the three measures give the same result, namely, grade 10. Schools will want to keep track of the median and modal dropout grade to ascertain the extent to which innovational efforts affect holding power. Also the information can be used as a guide to the grades at which or before which new approaches are needed most.

Range of Distribution

There are some items for which the most meaningful combination of data involves a range of distribution. The intelligence quotients of Marshall High School dropouts serve to demonstrate this kind of combination. The number of pupils in each range segment is divided by the total number of pupils to determine the percentage of pupils in a given range.

Table 12
Distribution of I.Q. Scores

I.Q. (Item 15)	Dropouts Number	Percent
130	1	2
124	1	2
121	1	2
119	3	6
117	1	2
111	1	2
108	4	8
104	2	4
101	6	12
97	4	8
95	7	14
91	3	6
86	6	12
84	4	8
81	6	12
Total	50	100

I.Q. Range	Dropouts Number	Percent
121-130	3	6
111-120	5	10
101-110	12	24
91-100	14	28
81-90	16	32
81-130	50	100

I.Q. Range: 81-130
Mean I.Q. 97.6; Median I.Q. 97; Modal I.Q. 95

About one-third (32%) of these pupils scored below the normal I.Q. range of 91-110, and approximately one-sixth (16%) had I.Q. scores of 110 or above. Some questions might be: In what programs of studies are those pupils who have I.Q.'s less than 90 enrolled? What reasons do those of 100 I.Q. or below give for leaving school? What reasons do those above 100 I.Q. give for leaving school?

The range presentation can be used on other items such as age-grade placement and reading level. In both of the latter cases, after determining the percentage of dropouts above or below grade level it may be fruitful to find what percentage of those dropouts below or above grade level are 1-2 years, 3-4 year, etc., away from the norm.

Correlations of Items

Correlations within, between and among items can be useful in studies where more intensive analysis is desired. From such a method, additional insights might be forthcoming which have implications for improving instruction and enhancing pupil adjustment. Usually a combination of two or more variables are compared. In the example given, the pupil's "main reason for dropping out"

Table 13
I.Q. Scores and Reasons For Dropping Out

Principal Pupil Reason for Dropping Out (Item 30)	Intelligence Quotient (Item 15)					Total Number of Dropouts	Percentage of Total Dropouts
	81–90	91–100	101–110	111–120	121–130		
Academic Difficulty	2	4	4	—	—	10	20
Lack of Appropriate Curriculum	2	3	5	2	—	12	24
Poor Pupil/Staff Relationships	1	1	—	—	1	3	6
Poor Relationships with Fellow Pupils	1	—	1	—	1	3	6
Dislike of School Experiences	5	4	1	3	1	14	28
Economic Reasons	3	1	1	—	—	5	10
Employment	2	1	—	—	—	3	6
TOTALS	16	14	12	5	3	50	100

as shown on the vertical axis is correlated with I.Q. on the horizontal axis. For this example, it would be possible to hold the "reason" constant while new variables are compared on the horizontal axis. The reasons for leaving as given by Marshall dropouts and their intelligence quotient scores as provided by the forms are the source of data.

In the I.Q. range of greatest dropping out (81-90), the reasons which most often occur are "dislike of school experiences" and "economic reason." Among the more able pupils (111-130) it appears that interpersonal relations loom as a larger problem than scholastic difficulty. In most of the I.Q. ranges there is evidence of dislike for school.

Comparison Between Dropouts and Graduates

Comparison of characteristics of dropouts and graduates can be useful in studies which seek to discover those elements, experiences, or family background which seem to be pre-disposing factors in dropping out. In the first example, a distribution chart represents, by percentage, with whom the pupils, dropouts and graduates are living. The second chart, a correlation chart, shows the proportion of pupils not living with both natural parents according to I.Q. distribution.

Table 14

Pupil Living With (Item 25)

Lives With	Dropouts Percent	Graduates Percent
Both natural parents	56	78
Mother	17	7
Father	5	2
Mother and stepfather	10	6
Father and stepmother	5	3
Grandparents	3	1
Foster parents	1	2
Relatives	2	1
Friends	0	0
Institution	1	0
TOTAL	100	100

Fifty-six percent of the dropouts were living with both natural parents as compared with 78 percent of the graduates. A little more than one-fifth of the dropouts were living with one natural parent only as compared with one-eleventh of the graduates; and twice as many dropouts were not living with both natural parents as compared with graduates (44% and 22%).

Table 15

Pupils Not Living With Both Natural Parents According to I.Q. Distribution

I.Q. Range	Percent of Dropouts	Percent of Graduates
111 or above	35	14
91 to 110	41	20
90 or below	46	34
TOTAL	44	22

Thirty-five percent of the dropouts who had I.Q. of 111 or above were not living with both natural parents as compared with 14 percent of the graduates. In the I.Q. range, 91 to 110, approximately two out of five dropouts were not living with both natural parents, and this increased to almost one out of two (46%) in the I.Q. range of 90 or below. In contrast, the percentage of graduates who were not living with both natural parents was 20 percent of those who were in the I.Q. range 91 to 110, and 34 percent in the I.Q. range of 90 or below.

The foregoing examples have presented six ways in which data may be combined for analysis. These approaches are not meant to serve as an exclusive index, nor are they presumed to be fully comprehensive. The attempt here has been only to show some of the more basic ways of compiling information that are common to many investigations.

Additional examples of tabular reporting coupled with correlation analysis can be found in Appendix C starting on page 75. The examples cited are:

- Grade level and chronological age.
- Comparison of attendance records by grade levels between graduates and dropouts.
- Comparison of reading levels by race for graduates and dropouts.
- Comparison of years of schooling completed by parents of graduates and dropouts.
- At what grade or age does dropping out occur most frequently?
- A measure of peer acceptance of dropouts in relation to some scholastic and attendance factors.
- Pupil reasons for dropping out in relation to program of studies and I.Q. range or scholastic aptitude.
- A comparison of estimated reading level and senior high school achievement.
- A comparison of pupil reasons for dropping out and occupation of pupil's father.
- A comparison between graduates and dropouts on some factors of age-grade placement, reading level and general scholastic achievement.

CHAPTER VII[1]

Calculating Rates of Pupil Mobility

Many dropout studies which have come to the attention of the staff of the Project on School Dropouts indicate that pupil mobility, in general, tends to have a negative effect on school holding power. Pupils who move frequently from one residence to another, and are compelled thereby to attend many different schools, have a higher incidence of dropping out than pupils who move less frequently.

A study done by the Los Angeles City School Districts titled, *Dropouts Vs. Graduates,* and published in February 1965 found that graduates had been enrolled in Los Angeles City Schools approximately four years longer than had dropouts (10.6 years versus 6.4 years). It also found that, on the average, graduates had spent 87 percent of their school years in Los Angeles City Schools while dropouts had spent 60 percent; and more than one-half (57 percent) of the dropouts had been enrolled for less than one year in the schools from which they dropped out. And finally, of the pupils who had transferred into the Los Angeles Public Schools from public schools in the Metropolitan Los Angeles Area approximately 70 percent dropped out while transfers from private schools in the metropolitan area had a dropout rate of 65 percent.

High pupil transiency affects not only dropout rates but also pupil and teacher relationships as well as school administration and organization. In order to plan better to reduce the number of dropouts, some school administrators may want to calculate the proportion of the total number of different pupils who, during a regular school term, transfer into, out of, or within their school system. To determine what percentage of pupils are transfer pupils new to the school, divide the number of in-transfers by the number of pupils in membership. To determine a given element of pupil mobility, total that element of pupil movement and divide by the number of different pupils who enter the school or school system during the regular school term. Thus, while the numerator depends on selected elements of pupil movement, including transfers (T), the denominator consists of all entries (E) and reentries (R) during the period. The E's and R's in this base have been adopted from the 1964 publication of the U. S. Office of Education entitled *Pupil Accounting for Local and State School Systems.* According to this publication, these symbols represent types of entry which should be routinely available in all schools and school systems of the United States as follows:

> (E1) *Original Entry for the United States*—A pupil who for the first time in the United States or its outlying areas enters a public or nonpublic elementary or secondary school during the regular school term for which the report is made.

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[1] Dr. John F. Putnam, Specialist in Educational Records and Reports, U.S. Office of Education, contributed materially to this chapter.

(E2) *Original Entry Transferred From Another State*—An entering pupil who previously has entered a public or nonpublic elementary or secondary school in another State during the regular school term for which the report is made, and who has not previously entered a school in this State during this regular school term.

Types of reentry (R) include:

(R1) *Reentry From Within the Same School*—A pupil received from another room within the same elementary or secondary school. (This applies only where homeroom registers are kept and is used in situations in which the pupil's name has been transferred from one homeroom register to another because of a transfer, promotion, or demotion within the same school.)

(R2) *Reentry From a Public School in the Same Local Administrative Unit*—A pupil received from a public school, located in the same local administrative unit, which he entered earlier in the current regular school term.

(R3) *Reentry From a Nonpublic School in the Same Local Administrative Unit*—A pupil received from a nonpublic school, located in the same local administrative unit, which he entered earlier in the current regular school term.

(R4) *Reentry From a Public School in the State, but Outside the Local Administrative Unit*—A pupil received from a public school, located in the same State but outside the local administrative unit, which he entered earlier in the current regular school term.

(R5) *Reentry From a Nonpublic School in the State, but Outside the Local Administrative Unit*—A pupil received from a nonpublic school, located in the same State but outside the local administrative unit, which he entered earlier in the current regular school term.

(R6) *Reentry From the Same Room in the Same School After Withdrawal or Discharge*—A pupil who returns to the same room in the same school after withdrawal or discharge from this room earlier in the current regular school term, and who has not entered any other school during the intervening period.

(R7) *Reentry From Another State or Country*—A pupil received directly from a school in another State or country who previously entered a school in this State during the current regular school term.

A *transfer* is a pupil who leaves one class, grade, or school and moves to another class, grade, or school. Types of transfer (T) include:

(T1) *Transfer Within the Same School*—The pupil's name is transferred during the regular school term from one homeroom register to another because of a transfer, promotion, or demotion within the same school.

(T2) *Transfer to a Public School or Other Instruction under Public School Supervision in the Same Local Administrative Unit.*

(T3) *Transfer to a Nonpublic School Located Within the Same Administrative Unit.*

(T4) *Transfer to a School Outside the Local Administrative Unit.*

The distinction between the "school year" and the "regular school term," as applied to the discussions in this chapter, are clarified in the following definitions which were developed for use in *Pupil Accounting for Local and State School Systems:*

School Year—The 12-month period of time denoting the beginning and ending dates for school accounting purposes, usually from July 1 to June 30.

School Term, Regular—The school term which usually begins in the late summer or fall and ends in the spring. A regular school term may be interrupted by one or more vacations.

For purposes of the computations which follow in this chapter, the number of pupil transfers includes all pupil movements between schools or school systems during the regular school term. It also includes pupil movements, during the summer from one school or school system where a pupil was in membership at the close of the regular school term in the spring, to another school or system which the pupil entered in the fall, except for situations in which the pupil is promoted to a more advanced level of education in the same school system (e.g., from an elementary school into a junior high school). Temporary attendance at a different school in the summer is not considered to involve a transfer if the pupil returns, at the opening of the regular school term in the fall, to the same school where he was in membership, or to which he was promoted at the close of the preceding regular school term.

The base figure includes the number of different pupils who were in membership during the regular school term.

Pupil Mobility For a Public School System

The following computations for transfer rates, which indicate pupil mobility, apply only to public school systems. They may be adapted for nonpublic school systems by adapting (R3) to include any reentry from a nonpublic school in the same nonpublic school system, and by adapting (R5) to include any reentry from a nonpublic school in the State, but outside the same nonpublic school system.

Annual In-Transfer Rate for a Public School System

To compute the annual in-transfer rate for a public school system, divide the total time pupils transfer into the system from another system, during the school year, by the total number of different pupils who enter this system during the regular school term. The result, expressed as a percentage, indicates the proportion of pupil transfers into the system in relation to the total number of different pupils in the system during the term. The formula follows:

$$\text{Annual In-Transfer Rate for a Public School System} = \frac{\text{E2}^{*} + \text{R's (except R1, R2, R6}^{\dagger})}{\text{E's} + \text{R's (except R1, R2, R6}^{\dagger})}$$

To compute the rate of pupil transfer into a school system from a particular source (e.g., from an out-of-state, parochial, or neighboring school system) divide the number of pupil in-transfers from the source considered, during the regular school year, by the total number of different pupils who enter the system during the regular school term.

Annual Out-Transfer Rate for a Public School System

To compute annual out-transfer rate for a school system, divide the total times pupils transfer out from the system to any other system, during the school year, by the total number of different pupils who enter the system during the regular school term. The result, expressed as a percentage, indicates the proportion of pupil transfers out from the system in relation to the total number of different pupils in the system during the term. The formula follows:

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* Plus E1's who were considered to be in membership in another school system on the previous July 1.

† R1, R2, and R6 are excluded as they represent pupil movement within the system.

$$\text{Annual Out-Transfer Rate for a Public School System} = \frac{\text{T's (except T1, T2}\,\S)}{\text{E's + R's (except R1, R2, R6}\dagger)}$$

To compute the rate of pupil transfer out of a school system to a particular destination (e.g., to an out-of-state, parochial, or neighboring school system) divide the number of pupil out-transfers to the destination considered, during the school year, by the total number of different pupils who enter during the regular school term.

It may be desirable to know the combined proportion of transfers into and out of a school system, during a school year, in relation to the total number of different pupils who enter a system during the regular school term. This proportion is obtained by totaling the annual rates of in- and out-transfer.

To determine the extent to which in- or out-transfer rates exceed one another, subtract the lesser rate from the larger.

Pupils who had dropped out of school during a previous year and who returned to school during the same year are not shown in the numerator of the formula. A complete description of the reasons for this, as well as a suggestion for a new classification can be found on pages 25-26.

Annual Transfer Rate Within a Public School System

To compute the annual transfer rate within a public school system, divide the total times pupils transfer within the system, during the regular school term, by the total number of different pupils who enter the system during the term. The result, expressed as a percentage, indicates the proportion of pupil transfers within the system in relation to the total number of different pupils in the system during the term. The formula follows:

$$\text{Annual Transfer Rate Within a Public School System} = \frac{\text{T2}}{\text{E's + R's (except R1, R2, R6}\dagger)}$$

Total Annual Transfer Rate for a Public School System

To compute the total annual transfer rate for a public school system, divide the total times pupils transfer into, out of, and within the school system, during the regular school term, by the total number of different pupils who enter the system during the term. The result, expressed as a percentage, indicates the proportion of total pupil transfers in relation to the total number of different pupils in the system during the regular school term. The formula follows:

$$\text{Total Annual Transfer Rate for a Public School System} = \frac{\text{E2}^{*} + \text{R's (except R1, R2, R6}\dagger) + \text{T's (except T1}\ddagger)}{\text{E's + R's (except R1, R2, R6}\dagger)}$$

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* Plus E1's who were considered to be in membership in another school system on the previous July 1.

† R1, R2, and R6 excluded as they represent pupil movement within the system.

‡ T1 is excluded as it represents pupil movement within individual schools.

§ T1 and T2 are excluded as they represent pupil movement within the system.

Pupil Mobility For A School

The following computations for transfer rates, indicating pupil mobility, apply to any school, public or nonpublic.

Annual In-Transfer Rate for a School

To compute the annual in-transfer rate for any school, public or nonpublic, divide the total times pupils transfer into the school from any other school, during the school year, by the total number of different pupils who enter the school during the regular school term. The result, expressed as a percentage, indicates the proportion of pupil transfers into the school in relation to the total number of different pupils in the school during the term. The formula follows:

$$\begin{array}{l}\text{Annual In-Transfer}\\ \text{Rate for a School}\end{array} = \frac{\text{E2}^{*} + \text{R's (except R1, R6}^{\dagger}\text{)}}{\text{E's} + \text{R's (except R1, R6}^{\dagger}\text{)}}$$

To compute the rate of pupil transfer into a school from a particular source (e.g., from an out-of-state, parochial, or neighboring school) divide the number of pupil in-transfers from the source considered, during the school year, by the total number of different pupils who entered the school during the regular school term.

Annual Out-Transfer Rate for a School

To compute the annual out-transfer rate for any school, public or nonpublic, divide the total times pupils transfer out of the school to any other school, during the school year, by the total number of different pupils who enter during the regular school term. The result, expressed as a percentage, indicates the proportion of pupil transfers out of the school in relation to the total number of different pupils in the school during the regular school term. The formula follows:

$$\begin{array}{l}\text{Annual Out-Transfer}\\ \text{Rate for a School}\end{array} = \frac{\text{T's (except T1}^{\ddagger}\text{)}}{\text{E's} + \text{R's (except R1, R6}^{\dagger}\text{)}}$$

To compute the rate of pupil transfer out of a school to a particular destination (e.g., to an out-of-state, parochial, or neighboring school) divide the number of pupil out-transfers to the destination considered, during the school year, by the total number of different pupils who enter the school during the regular school term.

It may be desirable to know the combined proportion of transfers into and out of the school, during the school year, in relation to the total number of different pupils who enter during the regular school term. This proportion is obtained by totalling the annual rate of in and out transfer.

To determine the extent to which in- or out-transfer rates exceed one another subtract the lesser rate from the larger.

Annual Transfer Rate Within A School

To compute the annual transfer rate within any school, divide the total times pupils transfer within the school during the regular school term, by the total number of different pupils who enter the school during the term. The result, expressed as a percentage, indicates the proportion of pupil transfers within the school in relation to the total number of different pupils in the school during the term. The formula follows:

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[*] Plus E1's who were considered to be in membership in another school system on the previous July 1.

[†] R1 and R6 are excluded as they represent pupil movement within the school.

[‡] T1 is excluded as it represents pupil movement within the school.

$$\text{Annual Transfer Rate Within A School} = \frac{\text{T1}}{\text{E's} + \text{R's (except R1, R6}\dagger\text{)}}$$

Total Annual Transfer Rate for a School

To compute the total annual transfer rate for any school, divide the total times pupils transfer into and out of the school, during the school year, by the total number of different pupils who enter during the regular school term. The result, expressed as a percentage, indicates the proportion of total pupil transfers in relation to the total number of different pupils in the school during the term. The formula follows:

$$\text{Total Annual Transfer Rate for a School} = \frac{\text{E2}^{*} + \text{R's (except R1, R6}\dagger\text{)} + \text{T's (except T1}\ddagger\text{)}}{\text{E's} + \text{R's (except R1, R6}\dagger\text{)}}$$

Analysis of Pupil Mobility

An analysis of pupil mobility, as determined through the procedures presented in this chapter, provides a valuable background for the information obtained through the use of the guidance form discussed in Chapter IV and through calculations based on routine pupil accounting procedures. The manner in which these findings may be reported is discussed in the chapter which follows.

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* Plus E1's who were considered to be in membership in another school system on the previous July 1.

† R1 and R6 are excluded as they represent pupil movement within the school.

‡ T1 is excluded as it represents pupil movement within the school.

CHAPTER VIII

Reporting the Findings

Dropout studies are most successful when the results are reported to and understood by all groups of the adult and adolescent community. Therefore, it is necessary for those charged with the responsibility for disseminating research findings to consider such questions as: In what ways can presentation of results be most effective and influential? And how can results be presented to audiences of different educational levels?

Lamentably, the potential benefits of many sound research studies have been diminished by inappropriate presentation of findings. This has occurred where results were prepared in the form of indictments to, or defenses of, a school, school system, or community. A more positive approach that appears to serve better the resolution of the dropout problem is to set up guidelines or criteria for presentation of data. The following criteria are suggested:

- Findings presented should correspond to the purposes for which a study has been made.
- Primary focus should be directed toward informing the audience about the nature and extent of the problem.
- Emphasis in reporting research findings should be on the evaluation of the data obtained.
- Information presented should be clear and specific to ensure understanding.
- Reports containing charts, graphs or tabular materials should be accompanied by appropriate interpretative instructions.
- Implications or inferences should be accompanied by data on which surmises are based.
- Suggested implications should be directed toward evoking a positive response.
- Courses of action recommended should be as definitive and clear as possible.
- Reports should avoid stereotypes and over simplification of the issues.

Reporting findings of dropout studies, both in method of presentation and content of information, may differ depending on the educational level of an audience. Distribution of material containing correlations and other statistical analyses would not be appropriate for the lay public. Conversely, reports containing a minimum of statistical information, while appropriate for certain segments of the lay public, might be lacking in depth for other segments. It seems tenable to approach the task of reporting the study's finding by offering more than one report. Materials for presentation, then, should be available on at least two levels of educational sophistication. An excellent example of such a presentation is shown by the Maryland State Department of Education in their 1963 dropout findings written on two levels of difficulty.[1] It is well to pre-release portions of the report to a sample of persons who represent the levels of audience for whom material is intended. (It cannot be overemphasized that the public support of recommendations for programs to diminish dropout incidence will depend on the extent of public understanding.)

There is greater likelihood that information will receive wider attention by and have greater influence on the general public when reports are given by persons held in high esteem. For example, the dropout study chairman might report findings to a government official who in turn could make the information public. This means a statewide study would benefit by having the Governor, a state senator or a state representative release the information. Similarly in the local community power structure, an eminent person ought be considered for this role. In many instances this might be the mayor or city manager.

Wider coverage, of course, is permitted when the facilities of the mass media are utilized. Television, radio, and newspapers can offer excellent opportunities to reach those who would not otherwise be exposed to the findings of the report. In a similar but less important context, information can be made available at civic, church, and school meetings through panel discussion, booklets, papers, speeeches, filmstrips, charts, and other audio-visual aids. In short, any possible medium of effective communication should be employed to inform, arouse, and guide the public to a successful confrontation with all aspects of the dropout problem.

Tabular Reporting

Whereas a verbal report usually allows the listener to inquire as to points of doubt, written presentation of study findings must be sufficiently clear so as to ensure understanding by the reader. This is especially important when considering the use of tabular materials, charts, and graphs. Both in kind and amount the content of such material should be carefully prepared so as to communicate effectively with the specific audience to which it is directed. It is possible to present the same items of information in different ways so that, for example, one report might be more appropriate to informing the general public while another report would be of greater instructional value to a professional staff.

Tabular reports may be primarily quantitative or qualitative depending on their purpose. Quantitative reporting serves to show the scope of a problem while qualitative presentation seeks to indicate direction for greater concentration, innovation, and change. Each of these emphases are vital to improved understanding of the problem and to the development of appropriate next steps. In the hypothetical examples (Tables 1-10) which follow in Appendix C attention is given to both of these dimensions.

Recommendations

Most studies conclude with a section devoted to recommendations for subsequent action. Some excellent suggestions for the development and inclusion of pertinent recommendations are offered in the publication *Citizens Committees . . . for Better Schools.*[2]

"The final committee report, with recommendations, should be presented in writing and reviewed jointly by school board members, administrators, and representatives of the citizens group. The product of this review may then be discussed at a meeting of the general membership of the citizens committee. Only after these steps have been taken should a final report and recommendation be published for distribution to the entire community.

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[1] The Maryland Cooperative Study of Dropouts, *Our Dropouts: What Can Schools Do?* Maryland State Department of Education. Baltimore 1, Maryland, June 1963. *Pupil Dropout Study: Maryland Public High Schools,* by Paul E. Huffington. Maryland State Department of Education, Baltimore 1, Maryland. May, 1963.

[2] Fusco, *op. cit.* page 15-16.

"Every effort should be made by committee members to reach agreement on a single set of recommendations. Such recommedations should take into account the long-range effects and implications of the proposals. Any suggestion that a stop-gap solution to a problem has been developed, or that there has been any side-stepping of a basic issue, may result in worsening the original situation. Recommendations which ignore possible effects to other school programs, services, or activities may lead to difficulties where none existed previously. Committees, of course, should maintain their integrity and not prepare or revise their reports for the purpose of reflecting attitudes of board members.

"If members cannot agree on a single set of recommendations, it is probably better to include alternate proposals in the final report with a discussion of the pros and cons of each rather than to submit majority and minority reports. Experience indicates that submission of two separate, conflicting reports can lead to the development of opposing factions in the community, one supporting the majority report, the other favoring the minority report."

Recommendations are most usually addressed to the following aspects of the study or the dropout problem identified by it:

- Data—either more, in depth or in breadth, to supplement the study, or on a periodic follow-up basis in order to keep abreast of the problem.
- Variations or adjustments in the selection of appropriate programs and courses by and for pupils.
- Provision of additional services, such as guidance or remedial reading.
- Addition of new activities, such as exit interviews, extracurricular, or orientation programs.
- Introduction of programs of "compensatory" education, intervention or work-study.
- Further involvement of various groups, such as teachers, administrators, parents, and youth groups.
- Introduction of campaigns to keep pupils in school or to return recent dropouts to school as in Project Second Chance, Project Re-entry, and Operation Stay-In-School.

In general, it is desirable to indicate priorities for the recommendations furnished. In addition, recommendations may be either general, specific, or both. Thus, if the results reveal that a large number of dropouts occur among pupils who transfer into the school system at the junior high school level, then a *general* recommendation might be included to the point that greater note should be taken of this fact and appropriate steps introduced to alleviate possible adjustment problems for this group. In the same case, a *specific* recommendation might cite program changes or policy adjustments to be effected, such as special orientation sessions, extra guidance for these pupils and their parents, revised placement criteria, et cetera. It is usually more desirable to leave the translation into specific activities of the general recommendations to the groups or units concerned. The scope of the dropout study will also determine the degree of recommendation specificity to be attempted.

Frequently, the section on recommendations is the most often read and discussed portion of the whole dropout study report. Therefore, particular care must be exercised that the statement of recommendations be especially simple, direct, unambigous, and concise.

Comparison of Schools and School Systems: A Caution

A high or low dropout rate, by itself, is not a valid measure of the effectiveness of a school or school system. Comparison of schools or systems based solely on dropout rates will lead to erroneous and damaging conclusions. Some other factors which should be taken into consideration when making comparisons are:

- Annual per pupil expenditure for instruction.
- Guidance services available and the deployment of such services.
- Economic status of the neighborhood or school community.
- Educational level of the neighborhood or school community.
- Teachers' beginning salary.
- Teachers' maximum salary.
- Enforcement of compulsory attendance laws.
- Availability of jobs.
- Pupil Mobility.

Yet a comparison of dropout rates can and should serve a useful purpose. If a school or system has a higher dropout rate than a comparable unit, it should examine its practices and procedures to find out what it is or is not doing that causes a higher incidence of dropping out. And after discovering the causes, it can strengthen its program so as to reduce the number of pupils who drop out.

CHAPTER IX

Conclusion

"Every child must be encouraged to get as much education as he has the ability to take. We want this not only for his sake—but for the Nation's sake. Nothing matters more to the future of our country: not our military preparedness—for armed might is worthless if we lack the brain power to build a world of peace; not our productive economy—for we cannot sustain growth without trained manpower; not our democratic system of government—for freedom is fragile if citizens are ignorant."

President Lyndon B. Johnson, Educational Message to Congress, JANUARY 12, 1965

The enormity and seriousness of the dropout problem in American schools is now generally recognized by educators and the lay public alike. Paradoxically, a serious gap exists between what is known about the situation nationally as compared with what is known about it on a local or regional basis. Obviously, local and state systems cannot realistically analyze the problem and develop appropriate counter measures unless valid and meaningful data for the local area are continuously available. It was to this objective that the preceding chapters were directed.

During the mid-nineteen sixties, the Federal government has embarked on several revolutionary assistance programs whose aim is to vanquish poverty in America. Most of these new programs are characterized by their clear recognition of the role education has to play in these developments. As a result, financing of new programs for the culturally disadvantaged, the impoverished, the potential dropout, the dropout, and other similar groups will be less arduously accomplished than ever before in American education. Hence, much more time and creative energy can now be spent by administrators, counselors, and classroom teachers in developing suitable educational approaches and attacks. The fact remains, however, that it is vital to communities contemplating such programs that reliable and uniform data be gathered and maintained as a basis for program modification or expansion and for evaluation.

The NEA Project on School Dropouts' Guidance Form, described in Chapter IV, and in Appendix A, and the methods and computations for utilizing dropout data for analysis, described in Chapters V and VI, provide exciting and unparalleled possibilities for standardizing dropout studies in American schools. As a tool for policy development, for program planning, and for guidance and counseling, dropout studies, if conducted and utilized as delineated in the foregoing chapters, can constitute a dynamic and powerful force in American education and, ultimately, influence and enhance the lives of hundreds of thousands of pupils. Whether for one pupil or many, or as a basis for decision and action by the school board, a member of the school staff, a government or community leader, or the public, it is an instrument which can imbue education with even greater potential and promise for the future. As such, it should be carefully weighed and adopted by school systems across the country.

Appendices

Appendix A	Model Guidance Form for Individual Pupil Dropout or Potential Dropout
Appendix B	Instructions for Completing the Guidance Form Definition of Dropout Reasons for Dropping Out Classification of Occupations
Appendix C	Illustrative Examples of Tabular Reporting
Appendix D	A Representative Sample of Dropout Studies Conducted at the State, County, City, or School Level
Appendix E	A List of Participants at the October 1963 Invitational Conference Held in Washington, D. C.

Appendix B

Instructions for Completing the Guidance Form for Individual Pupil (Dropout or Potential Dropout) *Read Before Completing Form*

The Guidance Form for Individual Pupil can be completed by following the directions indicated on the form itself. However, since some items are specially defined, it is recommended that the person completing the form read these detailed instructions.

It is suggested that the Form be completed by the school counselor. This form is NOT to be completed by the pupil. In schools where no counselor is employed, the principal or other school administrator should complete the form. To ensure a most meaningful response, some items require the person completing the form to solicit information and judgment of other staff personnel.

Example A

Program of Studies

⓪ Academic
① Commercial
② General
③ Special
● Vocational

4

Check for special instructions beside each item number in the directions before answering each item on the form. Most items contain several possible categories to which students may be assigned. Choose the one most appropriate category and block out the corresponding numeral to its left. In Example A, the pupil was enrolled in a vocational program of studies. Therefore, numeral four, corresponding to the vocational program, has been blocked. For each item, the numeral selected is also to be written in the space provided beneath the column of digits.

Example B

I. Q.

●	⓪	⓪
①	①	①
②	②	②
	③	③
	④	④
	⑤	⑤
	⑥	●
	⑦	⑦
	●	⑧
	⑨	⑨
0	8	6

Some items require blocking out a series of numerals as in Example B to the left. The I. Q. indicated was 86. Therefore, blocked respectively are: zero in the hundred's column, eight in the ten's column, and six in the one's column. The number 86 is also written in the appropriate spaces provided below the columns of digits.

The reasons for writing numerals beneath each item in addition to blocking is to provide a double check and to facilitate scoring by hand. Every blank below the columns must have a number in it, including zeros; otherwise the data will be incomplete. It is suggested a red pencil be used for contrast.

Note: The number in the upper left hand corner of each box is the item number while the number in parentheses in upper right hand corner represents the column number (s) of a typical automatic data processing card. Since some questions require more than one column for the response, the item numbers are not identical with the column numbers. There are 42 items and 80 columns.

School Identification: Items 1-4, Columns 1-12

Item 1
County
Columns 1-2

Each county participating in a statewide study should be assigned a numerical designation even in those instances where county and system are coterminus. Indicate the county number by blocking numerals in the appropriate columns. (Example: County 83 would be shown by blocking eight in the tens column, and three in the ones column.) Write the county number in the appropriate spaces provided beneath the columns of digits. *If the study is limited to a single county or administrative unit therein, Item 1 need not be completed.*

Item 2
School System
Columns 3-5

Each school system participating in a statewide study should be assigned a numerical designation even in those instances where county and system are coterminous. Indicate this system number by blocking numerals in the appropriate columns. (Example: System 12 would be shown by blocking respectively: zero in the hundreds column, one in the tens column, and two in the ones column.) Write the system number in the appropriate spaces provided beneath the columns of digits. *If the study is limited to a single system or administrative unit therein, Item 2 need not be completed.*

Item 3
School
Columns 6-8

A numerical designation should be assigned each school within a system regardless of whether the dropout study is county wide, systemwide, or statewide in scope. Indicate the school number by blocking numerals in the appropriate columns. (Example: School 7 would be shown by blocking respectively: zero in the hundreds column, zero in the tens column, and seven in the ones column.) Write the school number in the appropriate spaces provided beneath the columns of digits. *If the study is limited to a single school, Item 3 need not be completed.*

Item 4
School
Membership
Columns 9-12

By blocking numerals in appropriate columns, indicate school membership as of July 1. (Example: A school with a membership of 2,300 pupils would be shown by blocking respectively: two in the thousands column, three in the hundreds column, zero in the tens column, and zero in the ones column.) Write the school membership in the appropriate spaces provided beneath the columns of digits. *If the study is limited to a single school, Item 4 need not be completed.*

Individual Identification: Items 5-7, Columns 13-15

Item 5
Sex
Column 13

Block the numeral that corresponds to the sex of the pupil. Write the number blocked in the space provided beneath the column of digits.

Item 6 Race Column 14 (optional)	Block the numeral that corresponds to the race of the pupil. The classification "other" as used by the U. S. Bureau of the Census includes members of all races other than white or Negro. For example, persons who might be shown under the category of "other" are: Aleuts, American Indians, Chinese, Eskimos, Filipinos, Hawaiians, Japanese, Koreans, Malayans, and Polynesians. Such additional designations may be inserted if appropriate for the purpose of a specific study. Write the numeral blocked in the space provided beneath the columns of digits. *This item is optional* but if completed should be based on recorded information or observation. Pupils should not be questioned.
Item 7 Ethnic Origin Column 15 (optional)	Block the numeral that corresponds to the pupil's ethnic origin. Depending on the area of the country, it may be that ethnic groups other than those listed are of concern. In such cases, the group(s) can be listed to correspond with the numeral(s) left blank. (Note: American Indian, though technically a racial term, is listed under ethnic origin in order that the incidence of dropping out for this group can be determined.) Write the numeral blocked in the space provided beneath the column of digits. *This item is optional* but if completed should be based on recorded information or observation. Pupils should not be questioned. Additional categories may be inserted if appropriate for the purposes of a specific study.

School Status at Time of Dropping Out: Items 8-13, Columns 16-32

Item 8 Date of Exit Year Columns 16-17	By year of exit is meant the date at which the pupil withdraws from membership. To complete this item the last two numerals of the year date 19— must be selected. (Example: If the pupil drops out in the year 1965 the numerals blocked would be six in the tens column and five in the ones column.) Write the last two numerals of the year in the appropriate spaces provided beneath the columns of digits.
Month Columns 18-19	Block the month number that corresponds to the date at which the pupil withdraws from membership. (Example: Dropping out in October which is the tenth month of the year would be shown by blocking one in the tens column and zero in the ones column.) Write the withdrawal month number in the approprite spaces provided beneath the columns of digits. *All summer dropouts are considered as having left in the seventh calendar month.*
Item 9 Age at Exit Years Columns 20-21	Block the pupil's age in years at time of dropping out. (Example: Age 16 would be shown by blocking one in the tens column and six in the ones column.) Write the number of years in the appropriate spaces provided beneath the columns of digits.

Months
Columns 22-23

Block the number of months since the pupil's last birthday to the nearest month. (Example: 9 months beyond the last birthday would be shown by blocking zero in the tens columns and nine in the ones column.) Write the number of months in the appropriate spaces provided beneath the columns of digits.

Item 10
Grade at Exit
Columns 24-25

Block the numerals that correspond to the grade to which the pupil was assigned at the time of his dropping out. Summer dropouts are considered members of the grade to which they would be expected to return in the fall. (Example: Dropping out in the summer after successfully completing the 9th grade would be considered dropping out in the 10th grade and would be shown by blocking one in the tens column and zero in the ones column.) *Note:* Pupils in special education or other programs for which no grade level is assigned can be shown by blocking zero in both the tens and ones column. Write the blocked numeral in the spaces provided beneath the columns of digits.

Item 11
Regularity of Attendance
Columns 26-27

Complete Item 11 whether dropping out occurs in junior or senior high school using as many years of junior high school attendance data as is available. Column 27 cannot be completed if the pupil leaves before reaching senior high school, but where completed should include as many years of senior high school attendance as is available. Block the numeral in each column that indicates the regularity of the pupil's attendance. Write the attendance numeral blocked in the space provided beneath the columns of digits.

Attendance may be considered:

> *Regular* when the number of unexcused absences was insufficient to cause concern.
>
> *Irregular* when unexcused absences approximate 10% of the time school was in session.
>
> *Truant* when the number of unexcused absences exceeded about 10% of the time school was in session.

Item 12
Miles from Home to School
Columns 28-29
(optional)

Miles from home to school includes the total distance the pupil must travel between his residence and his school. Block the number of miles in the appropriate columns. (Example: 8 miles would be shown by blocking zero in the tens column and eight in the ones column.) Write the number of miles in the appropriate spaces provided beneath the columns of digits. ***Item 12 is optional.***

to Bus
Columns 30-31
(optional)

Miles from home to bus includes the total distance the pupil must travel between his residence and the point at which school transportation is provided. Block the number of miles in the appropriate columns. (Example: 3 miles to school bus pick-up point would be shown by blocking zero in the tens column and three in the ones column.) Write the number of miles in the appropriate spaces provided beneath the columns of digits. *Item 12 is optional.*

Item 13
Employment:
Hours per Week
Column 32

Block the numeral that corresponds to the number of hours per week the pupil was employed immediately prior to his withdrawal from membership. Write the numeral blocked in the space provided beneath the column of digits.

School Performance: Item 14-21, Columns 33-46

Item 14
Program of
Studies
Column 33

Block the numeral that corresponds to the type of program the pupil was enrolled in. Write the numeral blocked in the space provided beneath the column of digits. Definitions of program types have been taken from the *Dictionary of Education:*[1]

> *Academic*—A program of studies designed to prepare one for admission to higher education; the program usually pertains to studies in English, foreign languages, history, economics, mathematics, and science.
>
> *Commercial*—A sequence of courses in business and clerical studies.
>
> *General*—A program not specifically designed to prepare for college. Rather, it includes those phases of learning which should be the common experience of all men and women. Studies pertain to fields other than English, foreign language, history, economics, mathematics, and science.
>
> *Special*—A modified program for pupils (e.g., deaf, blind, partially seeing, mentally subnormal, gifted) who deviate so far physically, mentally, emotionally, or socially from the relatively homogenous groups of so-called "normal" pupils that the standard curriculum is not suitable for their needs.
>
> *Vocational*—A program of practical work and instruction in some vocational subject, preparing the pupil for competent service in a non-professional or semi-professional occupation (e.g., welding, barbering, cosmetology, carpentry, shoe repair, etc.).

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[1] Carter U. Good, *Dictionary of Education* (Revised edition). New York: McGraw-Hill Publishing Co., 1959.

Item 15 **Scholastic Aptitude or Intelligence Quotient** **Columns 34-36**	Block the appropriate numerals that indicate the scholastic aptitude or intelligence quotient (I.Q.) of the pupil as measured by his most recent test. (Example: An I.Q. of 86 would be shown by blocking respectively: 0 in the hundreds column, 8 in the tens column, and 6 in the ones column. A scaled score of 285 would be shown by blocking respectively: 2 in the hundreds column, 8 in the tens column, and 5 in the ones column. A percentile rank of 78 would be shown by blocking respectively: 0 in the hundreds column, 7 in the tens column, and 8 in the ones column. A stanine of 4 would be shown by blocking respectively: 0 in the hundreds column, 0 in the tens column, and 4 in the ones column.)
Item 16 **Years Since Last Scholastic Aptitude or Intelligence Quotient Test** **Column 37**	Block the numeral that corresponds to the nearest number of years since the most recent scholastic aptitude or I.Q. test taken by the pupil. (Example: An I.Q. test taken within the past school term would be shown by blocking the numeral 0.) Write the number of years since the last I.Q. or scholastic aptitude test recorded in item 15 in the space provided beneath the column of digits.
Item 17 **Age-Grade Placement** **Grade** **Column 38**	The age-grade placement is predicated upon a normal age of entrance to each grade. For the first grade the usual age is 6 years, and for each succeeding grade the average child should be one year older. Using the standard age adhered to for a given grade by a school system, one may determine, by comparison with a pupil's age, whether he is at, below, or above grade level. (Example: A pupil in seventh grade at 14 years of age where 14 year-olds are normally expected to be in ninth grade is two years below grade.) Block the numeral corresponding to the pupil's situation. Write the numeral blocked in the space provided beneath the column of digits.
Years Above or Below **Column 39**	Block the number of years a pupil is below or above his age-grade placement. (Zero denotes "at grade level.") Write the numeral blocked in the space provided beneath the column of digits.
Item 18 **Estimated Reading Level** **Grade** **Column 40**	Estimated reading level is based on subjective judgment at time of exit. Standardized test scores, where available, should be the major factor in this decision. Where reading scores are reported in school years and months, assume the nearest year to be the pupil's level. (Example: All reading scores within a half year of the pupil's year and month of grade placement are to be considered "at grade level.") Indicate whether a pupil is below, at, or above grade level in reading by blocking the numeral

corresponding to the pupil's situation. Write the numeral blocked in the spaces provided beneath the column of digits.

Years Above or Below
Column 41

Block the number of years a pupil is above or below reading level. (Zero denotes "at grade level.") Write the numeral blocked in the space provided beneath the column of digits.

Item 19
Rank in Class
Column 42

Estimated quartile academic rank in class should be based on statistical data where possible. If such information is lacking, the item may be completed by subjective judgment of the counselor or other school official whose judgment is considered most relevant. Block the numeral that corresponds to the quartile of the pupil's academic rank in his class. Write the numeral blocked in the space provided beneath the column of digits.

Item 20
General Scholastic Achievement
Columns 43-45

Indicate the pupil's general scholastic achievement by blocking numerals in appropriate columns using the best data that are available. General achievement means the average of the pupil's course marks. (Example: Average marks of 'D' in junior high school would be below average.) Schools using other than a letter system of marking should use their own marking system as a base of reference. Columns 44 and 45 cannot be completed if dropping out occurs in elementary school; likewise, column 45 cannot be completed if dropping out occurs in junior high school. Write the numerals blocked in the space provided beneath the appropriate column(s) of digits.

Item 21
Number of Courses Failed at Last Report
Column 46

Block the number of courses the pupil failed during the marking period that preceded withdrawal from membership. Write the numeral blocked in the space provided beneath the column of digits.

Family Background: Items 22-29, Columns 47-48

Item 22
Highest Grade Completed
By Father
Columns 47-48

Indicate the highest school grade completed by the pupil's father by blocking numerals in the appropriate columns. (Example: A father who attended school through eighth grade would be shown by blocking zero in the tens column and eight in the ones column.) Write the highest grade completed in the appropriate spaces provided beneath the columns of digits.

By Mother
Columns 49-50

Indicate the highest school grade completed by pupil's mother by blocking numerals in the appropriate columns. (Example: A mother who received a bachelor's degree would be shown by blocking one in the tens column and six in the ones column.) Write the highest grade completed in the appropriate spaces provided beneath the columns of digits.

Item 23
Occupation of Father
Column 51

Block the numeral that corresponds to the occupational classification of the pupil's father. (Examples: A man employed as a machinist would be shown by blocking numeral four—craftsman; a man employed as a truck driver would be shown by blocking numeral five—operative.) Semiskilled workers are usually classified as operatives. Write the occupational classification number in the space provided below the column of digits.

Item 24
Occupation of Mother
Column 52

Block the numeral that corresponds to the appropriate occupational classification of the pupil's mother. (Examples: A woman employed as a waitress would be shown by blocking numeral seven—service; a woman employed on an assembly line testing transistors would be shown by blocking numeral five—operative.) Semiskilled workers are usually classified as operatives. Write the occupational classification number in the space provided below the column of digits.

Item 25
Pupil Living With—
Column 53

Block the numeral that corresponds to the pupil's situation. Write the numeral blocked in the space provided beneath the column of digits.

Item 26
Number of Siblings at Residence
Columns 54-55

Block in the appropriate columns the number of pupil's siblings who are living at the pupil's residence. The term siblings includes brothers and sisters by one or both parents. (Examples: A pupil with 7 siblings at home would be shown by blocking zero in the tens column and seven in the ones column; a pupil with no siblings at home would be shown by blocking zero in both columns.) Write the number of siblings in the appropriate spaces provided below the columns of digits.

Item 27
Economic Status of Residence
Column 56

Economic status of the residence is based on subjective judgment. Reference point for "average" is the larger community of the city or town, not the immediate neighborhood. (Example: A residence economically average for its neighborhood, but which is considered below the mean of income for a city, would be termed "below average.") Rural schools should consider the county as the point of reference. Block the numeral that corresponds to the economic status of the pupil's residence. Write the numeral blocked in the space provided beneath the column of digits.

Item 28
Annual Family Income
Column 57
(optional)

Block the numeral that corresponds to the family's annual income. Since some students may not know the annual income, but may know the amount of weekly wages, it is suggested that this amount be multiplied by 52 to get the annual income. Similar procedures should be followed if wages or public assistance grants are paid bi-weekly or semi-monthly. However, if an entry is made (item is optional) it should be made on the basis of annual income. Write the numeral blocked in the space provided beneath the column of digits.

Item 29 Time in School District Column 58	Block the numeral that corresponds to the total length of time a pupil *lived* in the school district prior to dropping out. Time includes all years in the district whether spent in the public schools or not, exclusive of time in the district before the pupil was old enough to attend the school. (Example: A pupil living in the district for less than half-year would be shown by blocking the numeral zero.) Write the numeral blocked in the space provided beneath the column of digits.

Reasons for Dropping Out: Item 30, Columns 59-66

(The definition of a dropout, plus the complete list and definitive explanations of the reasons for dropping out will be found on page 72.)*

Item 30 Reason for Dropping Out Pupil's Principal Reason Columns 59-60	The pupil is to indicate *only one principal reason* for dropping out. Block that number in the list of reasons provided which corresponds to pupil reason. (Example: Academic Difficulty, reason number 06, would be shown by blocking zero in the tens column and six in the ones column.) Write the reason number blocked in the spaces provided beneath the appropriate columns of digits. If the reason number is 10 or 17, specify the reason in the space above the two columns.
Pupil's Reason (Additional) Columns 61-62	The pupil is to indicate *only one additional* reason for dropping out. Block that number in the list of reasons provided which corresponds to the additional pupil reason. (Example: Economic Difficulty, reason number 13, would be shown by blocking one in the tens column and three in the ones column.) Write the reason number blocked in the spaces provided beneath the appropriate columns of digits. If the reason number is 10 or 17, specify the reason in the space above the two columns.
School's Principal Reason Columns 63-64	The reason for dropping out as assessed by the school should be determined by joint evaluation of the pupil's principal, teacher, counselor, and other professional staff members whose experience with the pupil might render combined judgment more

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[*] The definition of the word dropout and the definition and explanation of the reasons for dropping out are identical with the definitions and explanations found in the book, *Pupil Accounting For Local and State School Systems* compiled in the U. S. Office of Education by John F. Putnam and George G. Tankard, Jr., Specialists in Educational Records and Reports. (U. S. Department of Health, Education, and Welfare, Office of Education, State Educational Records and Reports Series: Handbook V, Bulletin No. 39, 1964, Washington, D. C. pp. 53-56.)

The Staff of the National Education Association's Project: School Dropouts co-operated with the U. S. Office of Education in formulating the new definition of dropout and the reasons for dropping out.

accurate. Those involved in the joint evaluation are to indicate *only one principal reason* for the pupil's withdrawal. Block that number in the list of reasons provided which corresponds to the principal reason selected. (Example: Lack of Appropriate Curriculum, reason number 07, would be shown by blocking zero in the tens column and seven in the ones column.) Write the reason number blocked in the spaces provided beneath the appropriate columns of digits. If the reason number is 10 or 17, specify the reason in the space above the two columns.

School's Reason
(Additional)
Columns 65-66

The reason for dropping out as assessed by the school should be determined by joint evaluation of the pupil's principal, teacher, counselor, and other professional staff members whose experience with the pupil might render combined judgment more accurate. Those involved in the joint evaluation are to indicate *only one additional reason* for the pupil's withdrawal. Block that number in the list of reasons provided which corresponds to additional reason selected. (Example: Poor Relationships with Fellow Pupils, reason number 09, would be shown by blocking zero in the tens column and nine in the ones column.) Write the reason number blocked in the spaces provided beneath the appropriate columns of digits. If the reason number is 10 or 17, specify the reason in the space above the two columns.

Pupil Adjustment: Items 31-35, Columns 67-73

Item 31
Number of
Extra-Curricular
Activities
Column 67

The number of extra-curricular activities includes only those during the regular school term or portion thereof immediately preceding dropping out. Extra-curricular activities of summer dropouts include those of the regular school term preceding dropping out. Block the numeral that corresponds to the number of extra-curricular activities in which a pupil has participated. (Example: A pupil who has not taken part in any extra-curricular activities would be shown by blocking the numeral zero.) Write the number of activities in the space provided beneath the column of digits.

Item 32
Acceptance
by Peers
Column 68

This item may require referral to joint evaluation if the person completing the form has not directly observed the pupil and his school peer-group interaction. Block the numeral that corresponds to the observed condition under which a pupil relates to his fellow pupils. (Example: A pupil who generally is tolerated by his fellows would be shown by blocking the numeral one.) Write the numeral blocked beneath the column of digits.

Item 33
Are Closest
Friends Out-of-
school?
Column 69

It is suggested that this item be referred to joint evaluation if the person completing the form is unfamiliar with the pupil's out-of-school friends. Block the numeral that indicates whether or not a pupil's closest friends are out of school. (Example: Absence of knowledge would be shown by blocking the numeral two for Unknown.) Write the numeral blocked beneath the column of digits.

Item 34
Disciplinary
Record
Column 70

The disciplinary record refers to administrative actions taken prior to the time of dropping out. Block the numeral that corresponds to the previous record of the pupil. (Example: A pupil who has been both suspended and expelled from school, previous to the time of dropping out, would be shown by blocking numeral three.) Write the blocked numeral in the space provided beneath the column of digits. Definitions of the terms "expulsion" and "suspension" follow:

> *Expulsion*—The action taken by school authorities compelling a pupil to withdraw from school for reasons such as extreme misbehavior and incorrigibility.
>
> *Suspension*—Temporary dismissal of a pupil from school usually by school personnel having authority granted by the board of education.

Item 35
Number of
Schools Attended
Columns 71-73

Complete Columns 71 and 72 whether dropping out occurs in junior or senior high school. Column 73 need not be completed if pupil dropped out before reaching senior high school. In each category block the total number of schools that the pupil attended. Write the number of schools attended in the space(s) provided beneath the appropriate column(s) of digits.

School Efforts: Items 36-42, Columns 74-80

Item 36
Special
Efforts Made by
the School
Column 74

This item concerns special efforts made by the school to help the pupil continue his education during the regular school term preceding his dropping out. Block the appropriate numeral that corresponds to efforts made for the pupil. (Example: Referral to a guidance specialist would be shown by blocking the numeral zero.) Write the numeral blocked in the space provided beneath the column of digits. The term:

> *Work-Study Program* includes any special provision whereby part of a pupil's day is spent in school and part in supervised employment.
>
> *Modified program* refers to any program modifications other than work-study programs.

Item 37 Exit Interview with Whom? Column 75	An exit interview occurs just prior to the withdrawal of the pupil, and is defined as a personal interview between the pupil and his counselor and/or teacher and/or principal. Block the numeral that indicates the person(s) with whom an exit interview was held. (Example: "None Held" would be shown by blocking numeral eight.) Write the numeral blocked in the space provided beneath the column of digits.
Item 38 Whose Idea to Leave School? Column 76	Block the numeral that corresponds to whomever is designated by the pupil as the person(s) whose decision it was for the pupil to leave school. Write the numeral blocked in the space provided beneath the column of digits.
Item 39 Would Stay In School If Column 77	Block the numeral that corresponds to the one school condition, as perceived by the pupil, that might have enabled him to remain in school. (Example: Individual tutoring would be indicated by blocking numeral four.) Write the numeral blocked in the space provided beneath the column of digits.
Item 40 Future Educational Plans Column 78	Block the numeral that corresponds to the future educational plans of the pupil. (Example: Returning to a similar school later would be shown by blocking numeral five.) Write the numeral blocked in the space provided beneath the column of digits.
Item 41 Was parent Contacted? Column 79	Parent contact, whether initiated by school or home, refers to personal contact with the home or guardian at the time of dropping out, immediately prior or subsequent to the pupil's withdrawal from membership. Block the numeral that corresponds to whether or not contact was made. Write the numeral blocked in the space provided beneath the column of digits.
Item 42 Parent Attitude Toward Dropping Out Column 80	Block the numeral that corresponds to the parental attitude observed regarding dropping out. Write the numeral blocked in the space provided beneath the column of digits.

IMPORTANT: Check over the form to make certain only *one* response has been given for each column.

Definition of Dropout

A dropout is a pupil who leaves a school, for any reason except death, before graduation or completion of a program of studies and without transferring to another school.

The term *dropout* is used most often to designate an elementary or secondary school pupil who has been in membership during the regular school term and who withdraws from membership before graduating from secondary school (grade 12) or before completing an equivalent program of studies. Such an individual is considered a dropout whether his dropping out occurs during or between regular school terms, whether his dropping out occurs before or after he has passed the compulsory school attendance age, and, where applicable, whether or not he has completed a minimum required amount of school work.

> Note: If a pupil enters a residential institution where he takes part in a regular school program, he is considered a transfer rather than a dropout.
>
> A pupil who enlists or is drafted into the armed forces is considered a dropout.
>
> A pupil who completes an "equivalent program of studies"—e.g., a mentally retarded pupil completing the appropriate program at age 18—is considered as a "completer" and not as a dropout; for purposes of a dropout study, this person is counted with the graduates.

Explanation of Reasons for Dropping Out: Item 30, Columns 59-66

(01) *Physical Illness*—The pupil left school because of a physical illness. This should be verified by a physician.

(02) *Physical Disability*—The pupil was excused from school attendance because of a physical impairment or handicap of a permanent or semi-permanent nature. This should be verified by a physician.

(03) *Mental Illness*—The pupil was excused or required to leave school because of a mental illness. This should be verified by a psychiatrist.

(04) *Mental Disability*—The pupil was excused from school attendance because of insufficient mental ability for successful participation in the educational program of the school system. This should be verified by a psychiatrist or psychologist.

(05) *Behavorial Difficulty*—The pupil was required to withdraw from school because of behavioral difficulty.

(06) *Academic Difficulty*—The pupil left school or was required to leave because of academic difficulty.

(07) *Lack of Appropriate Curriculum*—The pupil left school because the curriculum was not appropriate for his needs.

(08) *Poor Pupil-Staff Relationships*—The pupil left school because of poor relationships with members of the school staff.

(09) *Poor Relationships with Fellow Pupils*—The pupil left school because of poor relationships with fellow pupils.

(10) *Dislike of School Experiences*—The pupil left school because of an active dislike of one or more aspects of his school experiences, other than those expressed in reasons 06-09. Any such area of dislike should be specified on the form.

(11) *Parental Influence*—The pupil left school as a result of parental encouragement to do so.

(12) *Need at Home*—The pupil left school to help with work at home.

(13) *Economic Reasons*—The pupil left school because of economic reasons, including inability to pay school expenses and inability of parents to provide suitable clothing.

(14) *Employment*—The pupil left school to seek or accept employment, including employment required to support parents or other dependents.

(15) *Marriage*—The pupil left school because of marriage.

(16) *Pregnancy*—The pupil left school or

was required to leave because of pregnancy.

(17) *Other Known Reasons*—The pupil left school or was required to leave for some known reason, other than those of items 01-16. Any such reason should be specified on the form, e.g., no school available, and excessive distance from home to school or school bus route.

(18) *Reason Unknown* — The pupil left school for a reason which is not known.

(19) *New Residence, School Status Unknown*—The pupil left school upon moving to a new residence; it is not known if he entered a new school.

Note: The reason such a pupil is considered a dropout rather than a transfer is based on the assumption that if the pupil had in fact transferred, the receiving school would have requested the pupil's records. Since no request has been received by the home school, the pupil is considered a dropout. The result of such a rationale is to encourage better communications between schools and better use of the records of individual pupils.

Classification of Occupations:

Items 23-24, Columns 51-52

The classification of occupations used in the Guidance Form are based on, although not identical with, the broad classification of occupations used by the U. S. Bureau of the Census and the U. S. Department of Labor in collecting and reporting employment data. The classification used by the U. S. Bureau of the Census is:

- Professional, technical and kindred workers
- Farmers and farm managers
- Managers, officials, and proprietors
- Clerical and kindred workers
- Sales workers
- Craftsmen, foremen, and kindred workers
- Operatives and kindred workers*
- Private household workers
- Service workers except private household
- Farm laborers and foremen
- Laborers, except farm and mine

The categories used in the Guidance Form for Occupation of Father are:

- Professional, Technical
- Farmer, Farm Manager
- Manager, Proprietor
- Clerical, Sales
- Craftsmen
- Operative (semiskilled)
- Service Worker
- Farm Laborer
- Laborer (Non Farm)
- Unknown

The categories used in the Guidance Form for Occupation of Mother are:

- Housewife
- Professional, Technical
- Manager, Proprietor
- Clerical
- Sales
- Operative (semiskilled)
- Private Household
- Service
- Unknown

In the Guidance Form Classification of Occupation of Father, two items from the Bureau of the Census list, Clerical and Sales, have been combined into one item, and the item, Private Household Worker, has been eliminated. In the Occupation of Mother list, Housewife has been added and Farmer, Farm Laborer, and Laborer have been eliminated from the Bureau of Census list.

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* **Operatives are usually referred to as semiskilled workers.**

Appendix C

Illustrative Examples of Tabular Reporting

(List of Tables)

Table 1 Grade Level and Chronological Age of All Central High School Dropouts for the Year 1965.

Table 2 Comparison of Attendance Records by Grade Levels Between Central High School Graduates and Dropouts of the Class of 1965.

Table 3 Comparison of Reading Levels by Race Between Central High School Graduates and Dropouts of the Class of 1965.

Table 4 A Comparison of the Educational Levels of Parents Whose Children Drop Out and Parents Whose Children Graduate. Central High School, Class of 1965.

Table 5 Month of Dropping Out: Central High School Dropouts, July 1964 to June 1965.

Table 6 A Measure of Pupil Acceptance for Dropouts in Relation to Some Scholastic and Attendance Factors. (Pupil Sample: Central H.S.'s 50 Dropouts in 1965.)

Table 7 Pupil Reasons for Leaving School in Relation to Program of Studies and I.Q. Range.

Table 8 A Comparison of Estimated Reading Level and Senior High School Achievement for Central High School's 50 Dropouts of 1965.

Table 9 Principal Pupil Reason for Dropping Out Compared with Occupation of Pupil's Father for 100 Dropouts from Central High School.

Table 10 Comparison Between Graduates and Dropouts for the 1965 Class of Central High School on Some Factors of Placement and Achievement.

Note: Appendix C contains ten illustrative tables which show how information about dropouts might be presented in tabular form. The Central High School of these tables is completely fictitious and the figures presented in the illustrative tables are out of agreement or direct relationship in some instances.

Appendix C—Table 1

Grade Level and Chronological Age of All Central High School Dropouts for the Year 1965

Grade at Exit[1]	Age at Exit 13	14	15	16	17	18	19	Number of 1965 Dropouts	Percent of 1965 Dropouts
8	—	—	2	1	—	—	—	3	7.7
9	—	—	2	6	—	—	—	8	20.5
10	—	—	4	9	1	—	—	14	35.9
11	—	—	1	3	3	1	—	8	20.5
12	—	—	—	—	1	4	1	6	15.4
Total	—	—	9	19	5	5	1	39	100.0

[1] All numbers to the right of the shaded area represent the dropouts who are overage for their grade.

More pupils drop out at grade 10 than any other grade. The most common age of dropping out is 16. Of the 39 youngsters who in 1965 left Central High School before graduation, 30 of them or 76.9% were overage for the grade to which they were assigned.

Appendix C—Table 2

Comparison of Attendance Records by Grade Levels Between Central High School Graduates and Dropouts[1] of the Class of 1965

Level	Regularity of Attendance	Percentage of Graduates			Percentage of Dropouts		
Elem	Regular	90			75		
	Irregular		10			15	
	Truant			—			10
JHS	Regular	85			70		
	Irregular		12			15	
	Truant			3			15
SHS	Regular	84			55		
	Irregular		15			20	
	Truant			1			25

[1] Includes all pupils who dropped out of the Class since it began grade 10 in July 1962 at Central High School.

The likelihood of irregular and truant attendance is much greater in the case of dropouts than graduates. While regular attendance among graduates fluctuated from 90 to 84 percent between elementary and senior high school, during the same period regular attendance among dropouts diminished from 75 to 55 percent. At no level did the incidence of truancy among graduates exceed 3 percent while the high rate of truancy among dropouts was 25 percent.

The importance of early intervention by home, school, and community to prevent dropping out is shown by the fact that one-fourth (25 percent) of all Central High dropouts had poor attendance records in elementary school as opposed to only one-tenth (10 percent) of the pupils who remained to graduate from high school (grade 12).

Appendix C—Table 3

Comparison of Reading Levels by Race between Central High School Graduates and Dropouts[1] of the Class of 1965

Race	Number of Graduates	Reading Level of Graduates by Percent			Number of Dropouts	Reading Level of Dropouts by Percent		
		Below Grade	At Grade	Above Grade		Below Grade	At Grade	Above Grade
White	200	20	50	30	60	50	30	20
Negro	100	20	70	10	50	70	20	10
Other	100	20	60	20	40	50	40	10
Total (all races)	400	20	57.5	22.5	150	56.7	29.3	14.0

[1] Dropouts for the Class of 1965 include all pupils who have dropped out of the Class since it began grade 10 in July 1962 at Central High School.

There are great differences in reading level between graduates and dropouts. While over half (56.7 percent) of all dropouts were below grade level in reading, only one-fifth (20 percent) of the graduates fell below grade in reading. Negro dropouts appear most handicapped as 70 percent of their number were below grade level in reading.

Appendix C—Table 4

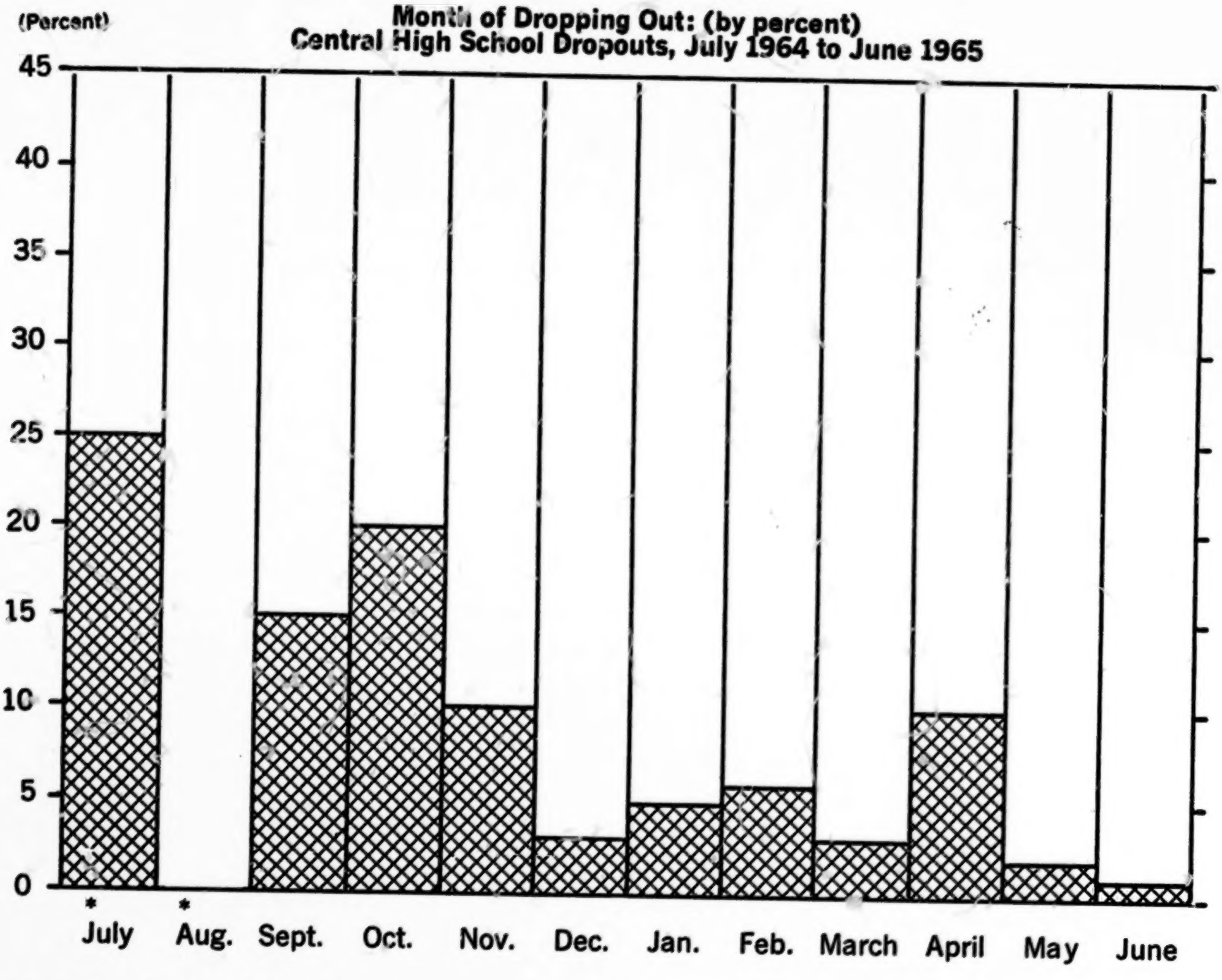
A Comparison of the Educational Levels of Parents Whose Children Drop Out and Parents Whose Children Graduate Central High School, Class of 1965

Highest Grade Completed by Father	Percent of Graduates	Percent of Dropouts	Highest Grade Completed by Mother	Percent of Graduates	Percent of Dropouts
1-6	2	20	1-6	4	25
7-9	20	40	7-9	25	50
10-11	30	20	10-11	30	15
12	25	15	12	20	8
13-15	15	5	13-15	14	2
16	6	—	16	5	—
17 or more	2	—	17 or more	2	—
Total	100	100		100	100

There is a strong relationship between the level of education achieved by parents and the likelihood of their children dropping out. 80 percent of the fathers and 90 percent of the mothers of dropouts did not complete secondary education themselves. On the other hand, 48 percent of the fathers and 41 percent of the mothers of graduates completed high school themselves. These figures indicate more than just a transfer of deleterious attitudes or a lesser share of intellectual inheritance. The figures indicate the communication level on which a substantial portion of the dropout campaign must be waged. Given the modal educational level of parents who had dropped out of school, it is entirely possible that schools have been vainly sending them information at too high a level or planning meetings inappropriate to their interests or attitudes.

Appendix C—Table 5

Month of Dropping Out: (by percent)
Central High School Dropouts, July 1964 to June 1965



* All pupils dropping out during the summer months (July and August) are recorded as having left in July.

The chart indicates summertime (July) to be the time of greatest pupil loss. Just after summer vacation during the initial weeks when school resumes in September and October there is high incidence also. The months during which dropping out is least likely to occur are February, May, June and December.

Appendix C—Table 6

A Measure of Pupil Acceptance for Dropouts in Relation to Some Scholastic and Attendance Factors. (Pupil Sample: Central H.S.'s 50 Dropouts in 1965)

No. of Drop-outs	Accept-tance by Peers	BELOW GRADE LEVEL			AT GRADE LEVEL			ABOVE GRADE LEVEL			Attendance		
		Age—Grade Placement	Est. Reading Level	General Achievement Level	Age—Grade Placement	Est. Reading Level	General Achievement Level	Age—Grade Placement	Est. Reading Level	General Achievement Level	REG.	IRREG.	TRUANT
25	Rejected	20	18	16	4	6	7	1	1	2	7	12	6
10	Tolerated	6	6	7	3	4	2	1	—	1	5	3	2
9	Accepted	3	2	2	4	5	6	2	2	1	7	2	—
4	Popular	1	1	—	2	2	3	1	1	1	4	—	—
2	Unknown	1	1	—	1	1	2	—	—	—	2	—	—
50	—	31	28	25	14	18	20	5	4	5	25	17	8

The table above shows the relationship between acceptance by peers (Item 32 on the Guidance Form), Age-Grade Placement (Item 17), Estimated Reading Level (Item 18), General Scholastic Achievement (Item 20), and Regularity of Attendance (Item 11). At Central High School half (50 percent) of the pupils who dropped out appeared to be rejected by their peer group. From the chart it appears that rejection is more likely when one: is older than his classmates, reads below grade level, and achieves lower marks than his fellows. Pupils who are rejected attend school less regularly than those who are acceptable to the group. The more acceptable a dropout is the more likely is his prospect for improved achievement and attendance. Perhaps the school should attempt to make the rejected more acceptable to their group if success is to be more tenable. Perhaps the school must create an atmosphere of acceptance for potential dropouts in the classroom, not only by staff members but, more importantly, by the peer group.

Appendix C—Table 7

Pupil Reasons for Leaving School in Relation to Program of Studies and I.Q. Range

	Intelligence Quotient Range 76-90 Program of Studies					Intelligence Quotient Range 111 and Above Program of Studies					
Reason for Leaving	Academic	Commercial	General	Special	Vocational	Academic	Commercial	General	Special	Vocational	Total
Academic Difficulty	2	1	13	3	12	—	1	—	—	—	32
Poor Pupil-Staff Relations	—	—	1	—	2	5	—	—	—	—	8
Dislike of School Exper.	—	4	6	1	6	5	—	—	—	1	23
Inappropriate Curriculum	—	1	14	—	14	3	1	—	—	—	33
Employment	—	5	14	1	11	—	—	—	—	2	33
Pregnancy	—	1	4	—	2	1	1	—	—	—	9
Total	2	12	52	5	47	14	3	—	—	3	138

Everyone does not leave school for the same reasons. This chart indicates a relation between one's I.Q. (Item 15 on the Guidance Form), Program of Studies (Item 14), and Reason for Dropping Out (Item 30). For purposes of illustration only two I.Q. ranges (76-90 and 111+) are shown here to depict the divergence in motivation for leaving school. While not shown, an additional 96 pupils dropped out whose I.Q. range was 90-109. This means that about one-half (116 of 234) of all the dropouts had an I.Q. of 91 or above; conversely, about 50 percent of all dropouts had an I.Q. of 90 or less. Those in the sub-90 range come from vocational and general education and give as their reason for leaving inappropriate curriculum, academic difficulty, and employment. These reasons seldom appear among those given by pupils in the I.Q. range 111+. By and large these pupils, most of whom are enrolled in an academic program of studies, seem more concerned about pupil-staff relations and dislike of school experiences. Thus resolution of the problem for one group of early school leavers would not necessarily help or, for that matter, even affect another group of dropouts enrolled in a different program of studies. The chart reiterates the need for restraint in categorizing dropouts as essentially similar when in fact their prospect of staying in school may well depend on their being considered individual and unique.

Appendix C—Table 8

A Comparison of Estimated Reading Level and Senior High School Achievement for Central High School's 50 Dropouts of 1965

Est. Reading Level	Number of Dropouts	General Scholastic Achievement Number of Pupils		
		Below Average	Average	Above Average
Below grade	30	25	5	—
At Grade	15	9	5	1
Above grade	5	1	3	1
Total	50	35	13	2

There seems to be a close relationship between general scholastic achievement and the ability to read. Most of the dropouts (30) are below grade level in reading and the bulk of them (25) achieve low marks. Those who read better tend to do much better in earning good grades. Among those dropouts who can read above grade level the prospect of academic difficulty as a reason for dropping out is negligible.

Appendix C—Table 9

Principal Pupil Reason for Dropping Out Compared With the Occupation of Pupil's Father for 100 Dropouts from Central High School

Principal Reason for Dropping Out	Occupation of Father								Total No. of Dropouts
	Laborer	Operative	Crafts-man	Farmer	Clerical Sales	Mana-ger	Prof.	Un-known	
Academic Difficulty	12	5	3	2	3	2	1	2	30
Inappropriate Curric.	8	7	5	—	1	2	1	—	24
Dislike School Exp.	6	3	1	1	2	1	1	2	17
Employment	6	4	1	—	1	—	—	2	14
Pregnancy	2	2	1	—	1	1	1	—	8
Marriage	2	1	1	—	1	1	1	—	7
Total Pupils	36	22	12	3	9	7	5	6	100

This chart juxtaposes the factors of Principal Pupil Reason for Dropping Out (Item 30) and Occupation of Father of dropout (Item 23). Academic Difficulty and Inappropriate Curriculum head the list of reasons given by Central High School pupils as their reason for leaving. The chart shows that reason for leaving tends to differ in relation to father's occupation. Children whose fathers are laborers or operatives drop out in greatest frequency (58 of the toal 100) giving as their reason most often academic difficulty, inappropriate curriculum, and employment. These particular reasons vary with the occupation classification of the father so that among children of professionals little or no academic difficulty or need for employment exists in this sample. Marriage and pregnancy are a factor in all occupational groups.

Appendix C—Table 10

Comparison Between Graduates and Dropouts for the 1965 Class of Central High School on Some Factors of Placement and Achievement

	Number of Pupils	Age-Grade Placement Percent			Est. Reading Level Percent			SHS General Achievement Percent		
		Below	At Grade	Above	Below	At Grade	Above	Below Av.	Average	Above Av.
Graduates	100	8	85	7	10	80	10	10	70	20
Dropouts	25	35	60	5	40	50	10	45	50	5

In the class considered here the dropouts are usually over age for their grade, behind in reading, and achieve less well than their classmates who graduate. Conversely, graduates are usually at grade level in reading, placement, and achievement. The chart points up the need for greater efforts in remediation since the 35 percent of dropouts who are holdovers frequently are retarded in reading ability and general scholastic achievement. Findings might also prompt scrutiny of school marking and retention practices.

Appendix D

A Representative Sample of Dropout Studies Conducted at the State, County, City, or School Level

State Studies

Illinois. *Procedures for Identification of Potential High School Dropouts.* (Springfield: 1962) Ray Page, Superintendent of Public Instruction, State Department of Public Instruction. 42 pp.

Iowa. *The Dropout Problem in Iowa High Schools.* (Iowa City: 1958) L. A. Van Dyke and K. B. Hoyt, College of Education, State University of Iowa. 88 pp.

Maryland. *Our Dropouts—The Maryland Cooperative Study of Dropouts.* (Baltimore: 1963) Maryland State Department of Education. 24 pp.

New York. *Reducing the School Dropout Rate—A Report on the Holding Power Project.* (Albany: 1963) Bureau of Guidance, State Education Department, The University of the State of New York. 18 pp.

Utah. *Utah State Dropout Study—First Year Interim Report.* (Salt Lake City: 1963) O. Ray Warner, Pupil Personnel Services, State Department of Public Instruction. 48 pp.

Vermont. *A Preliminary Study of Public High School Drop-Outs: National vs. Vermont.* (Montpelier: 1962) Lawrence Keim, State Department of Education. 12 pp.

Virginia. *Virginia Secondary School Dropouts 1962-63* (Richmond: 1964) W. S. Graybeal, Division of Educational Research, State Department of Education. 40 pp.

Washington. *Dropouts—Washington's Wasted Resources.* (Olympia: 1963) Louis Bruno, State Superintendent of Public Instruction, State Department of Public Instruction. Research Project No. 02-03. 25 pp.

City or County Studies

Bridgeport, Conn. *Annual Report on Drop-Outs, Grade 9-12—1961-1962 and A Comparative Study with the Cumulative Record—1956-1961.* (Bridgeport: 1963) Lester Silverstone, Director of Guidance, Bridgeport Public Schools. 21 pp.

Dade County, Florida. *A Study of Dropouts: Dade County, Florida Public Schools 1960-1963.* (Miami, Florida: 1964) Jonathan Gillingham, Assistant Director of the Department of Research and Information, Dade County, Florida. 124 pp.

Kansas City, Missouri. *A 1962 Survey of the 1956 High School Graduates of the School District of Kansas City, Missouri.* (Kansas City: 1963) Department of Guidance and Counseling, Kansas City Board of Education.

Los Angeles City School Districts, California. *Dropouts Vs. Graduates—A Study of Some Differentiating Characteristics of Dropouts and Graduates of the Los Angeles City Schools.* (Los Angeles: February 1965) Measurement and Evaluation Section, Los Angeles City Schools. Report No. 266. 61 pp.

Olympia, Washington. *The School Dropout —A Study of Secondary School Dropouts in the Rapidly Growing School District.* (Olympia: 1963) Harold E. Kloes, Director of Research, Edmonds School District, State Department of Public Instruction. Research Report 02-02. 28 pp.

Orange County, California. *The Nature and Extent of the Dropout Problem in Orange County.* (Santa Ana: California, 1965) Thomas F. Kelly, Education Service Division, County Schools Office. 68 pp.

Stamford, Conn. *High School Drop-Outs, in Stamford, Connecticut.* (Stamford: 1963) Committee on High School Drop-Outs, Stamford Community Council. 19 pp.

St. Paul, Minn. *Second Dropout Study—Based on Pupils Who Entered the Ninth Grade in the St. Paul Public Schools in September 1955.* (St. Paul: 1961) Office of Secondary and Vocational Education, St. Paul Public Schools. 98 pp.

Tampa, Florida. *Involuntary and Voluntary Withdrawals in the Hillsborough County Public Schools. Grades 7-12, 1962-63.* (Tampa: 1963) J. Crockett Farnell, Superintendent, Hillsborough County (Florida) Public Schools. 39 pp.

Tucson, Arizona. *Tucson's Drop-Out Problem.* (Tucson: 1962) Youth and Work Committee, Tucson Community Council, (403 Mayor Alameda Bldg.). 92 pp.

White Plains, N. Y. *Dropout Study: Graduating Classes 1958, 1959, 1960, 1961.* (White Plains: 1964) Mrs. Marian Graves, Director, Pupil Personnel Services, White Plains Public Schools, White Plains, N. Y. 54 pp.

School

Hanover (N. H.) High School. *A Study of New Hampshire High School Dropouts.* (Concord: 1962) New Hampshire State Department of Education. 5 pp.

Pueblo (Ariz.) High School. *I—Follow Up Report on Graduates; II— Drop Out Report.* (Tucson: 1963) Pueblo High School. 23 pp.

Appendix E

Participants at the October 1963 Invitational Conference Held in Washington, D. C.

DR. PAUL H. BOWMAN, *Chairman*
Kansas City Mental Health Foundation
Kansas City, Missouri

HERBERT BIENSTOCK
Regional Director
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DR. KENNETH B. HOYT
Professor of Education
State University of Iowa
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Dr. Roy Jones
Director of Training
Washington Action for Youth
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Wallace L. Jones
Assistant Director
School Attendance
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Dr. Ray E. Jongeward
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Paul Petrich
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Boyd T. Phillips
Prince Street School
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Mrs. Mary E. Raker
Coordinator of Research
Hillsborough County Schools
Tampa, Florida

Dr. Lester Silverstone
Director of Guidance
Bridgeport Public Schools
Bridgeport, Connecticut

Dr. Glenn R. Snider
Professor of Education
University of Oklahoma
Norman, Oklahoma

Gerald F. Ulrich
Consultant, Guidance
State Department of Education
Denver 2, Colorado

Glenn F. Varner
Assistant Superintendent
St. Paul Public Schools
St. Paul, Minnesota

Dr. Percy V. Williams
Supervisor of Pupil Services
State Department of Education
Baltimore, Maryland

Michael A. Wolak
Counselor in Charge of Testing
Pittsburgh Public Schools
Pittsburgh, Pennsylvania

Dr. Robert H. Zeller
Director of Guidance Services
Office of Superintendent
of Public Instruction
Springfield, Illinois

Staff

National Education Association
Project: School Dropouts

Daniel Schreiber
Director

Bernard A. Kaplan
Assistant Director
(1962-1963)

Robert D. Strom
Assistant Director
(1963-1964)

U.S. Office of Education

Dr. John E. Bean, *Specialist*
State Education Programs

Dr. Ralph Bedell, *Director*
Counseling & Guidance Institutes Branch

Dr. Roy W. Dugger, *Director*
Manpower Development & Training Program

Dr. Roderick Hilsinger, *Program Specialist*
Counseling & Guidance Institutes Branch

Mr. Peter P. McGraw
Specialist in Data Processing

Mr. Leonard M. Miller, *Specialist*
Counseling Techniques

Dr. John F. Putnam, *Specialist*
Educational Records & Reports

Dr. Frank L. Seivers, *Director*
Guidance & Counseling Branch

Dr. Kenneth A. Simon, *Director*
Reference, Estimates & Projections Branch

Dr. Hyrum M. Smith, *Chief*
Guidance Procedures & Techniques Section

Mr. O. Ray Warner, *Specialist*
Program Organization